An economist reviews the textile market 57
Profile: Thomas W. Church, Jr., Highland Park Mfg. Co. 65
Avondale's Birmingham plant modernizes its spinning 83

textile bulletin

EPTEMBER • 1957

Sectional
INDEX

ntching
ashington 26
itorials 31
xtile Industry
hedule 32
r The Textile
ustry's Use 38
The Mill
kshelf 50
rving The Textile
dustry 52
pening, Picking,
rding & Spinning. 79
rp Preparation
Weaving 87
eaching, Dyeing
Finishing 91
intenance, Engi-
ering & Handling. 95
sonal News 99
ll News 105
assified
lvertising 119

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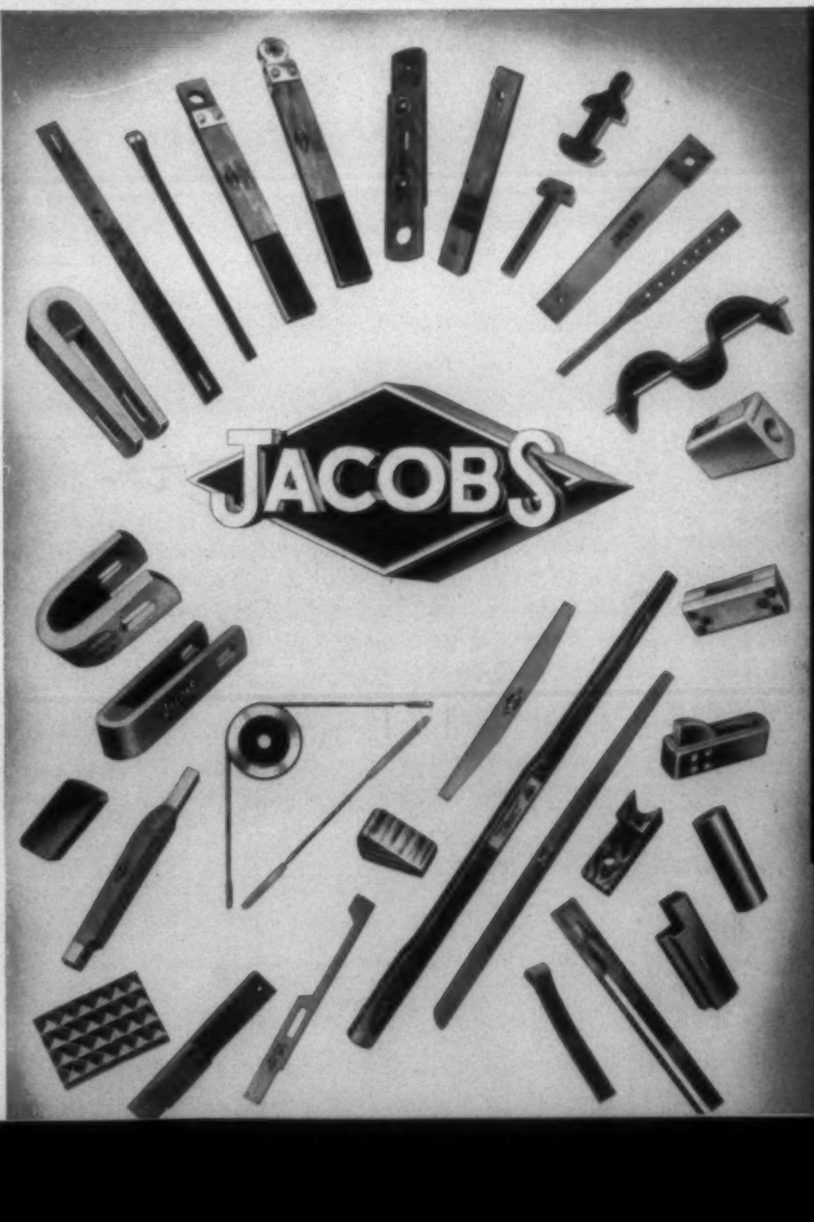

ALL

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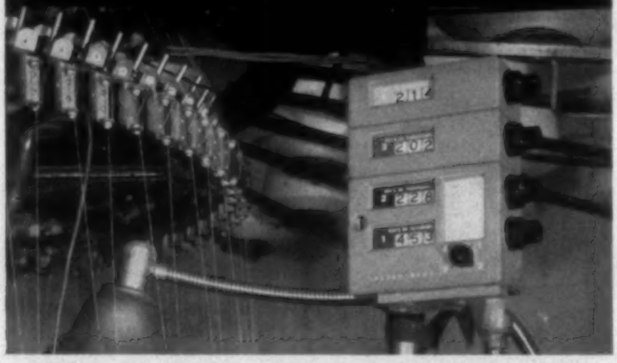
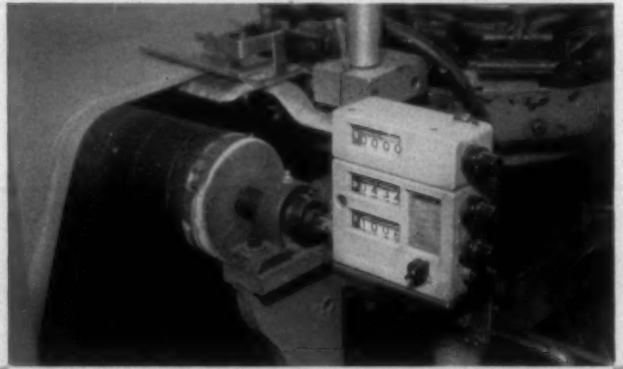
Modern Knitting Mill uses Veeder-Root COST-COUNTROL

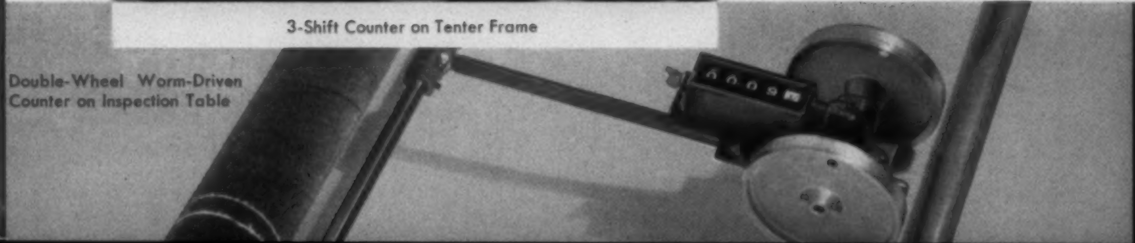
to Speed Production . . . Save Time . . . Eliminate Errors



3-Shift Revolution Counter on Knitting Machine at Lawrence Mfg. Co.



3-Shift Counter on Tenter Frame



Double-Wheel Worm-Driven Counter on Inspection Table

You'll see 2-3-4 Convertible Revolution Counters on every knitting machine in the high-production mill of the Lawrence Manufacturing Co., Lowell, Mass., division of Ames Textile Corporation.

On the basis of "facts-in-figures" supplied by these Veeder-Root Counters, workers are paid "by the numbers" which simplifies paperwork, provides incentives, and shows workers their exact earning status at all times.

That's why Veeder-Root Cost-*Count*rol is an important factor in the production of Lawrence's top-quality knit goods. Find out the advantages *your* mill can gain by using the same simple basic system. A Veeder-Root engineer will be glad to show you how . . . any time you say. Write:

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INCORPORATED
"The Name that Counts"

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RINGS

DRAPER "MIRROR-GOLD"

Improve break-in schedules with new "Mirror-Gold" rings

Mill tests prove that the new *"Mirror-Gold"* ring improves break-in schedules while *retaining all the advantages* of the famed DRAPER mirror-finish ring.

Identified by its golden color, this new ring increases Traveler life and reduces ends down.

For the maximum in ring economy, performance and service . . . specify DRAPER *"Mirror-Gold."*

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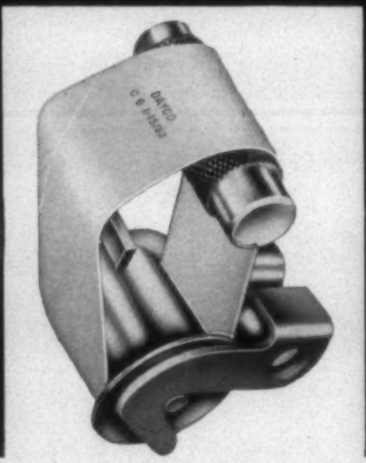
New flexible apron...

offer 8 important

All-Purpose Dayco AP 644 Apron improves yarn control — even on new high draft frames

Available for single and double apron systems



These important features mean more uniform yarn, trouble-free operation

1. Greater flexibility eliminates drag around nose bar
2. Reduced co-efficient of friction—chatter-proof
3. Lint-free—won't hold or stick to fibers
4. Highly oil resistant

Test the easy flexibility of the new Dayco AP 664 Apron with your own hands! See the clean pink color of the smooth, semi-gloss inner surface. Reduced co-efficient of friction minimizes chatter around the nose bar on low, high and super draft frames.

New light blue compounds in the drafting surface take just the right finish for all fibers—synthetic and natural. Special ingredients will not adhere to fibers after shutdowns, nor hold lint to coat the drafting surface. This superior apron is unaffected by extremes of temperature and humidity. No known oils affect the efficiency of the drawing face the remarkable new Dayco AP 664 Apron.

new lap resistant cot...

drafting advantages

All Weather Dayco EW 661 Cot draws uniformly, despite extreme "dog day" heat and humidity.

Completely new EVERGREEN compounds give you these vital features:

1. Improved drawing of *all* fibers—especially synthetics
2. Stays dry—won't sweat
3. Never becomes sticky
4. Won't adhere to fibers during shutdowns

Amazing surface action of newly developed EVERGREEN compounds assure you practically lap-free spinning every day of the year. This NEW Dayco Cot has proved itself lap resistant in *any* weather in actual mill tests. It never sweats nor becomes sticky, so the yarn can't slip nor adhere to the surface.

Even on mid-summer "dog days" with heat and humidity zooming upward, the EVERGREEN compounds in the new Dayco EW 661 Cot run cool, draw yarn smoothly, evenly, virtually *without lap-ups!*

Your Dayco Representative will be in to see you soon. He'll be glad to arrange for you to run a test frame of the all new Dayco AP 664 Aprons and the new all-weather Dayco EW 661 Cots as well as give you additional facts on these new, improved Dayco products. The Dayton Rubber Company, Textile Div., 401 S. C. National Bank Bldg., Greenville, S. C.

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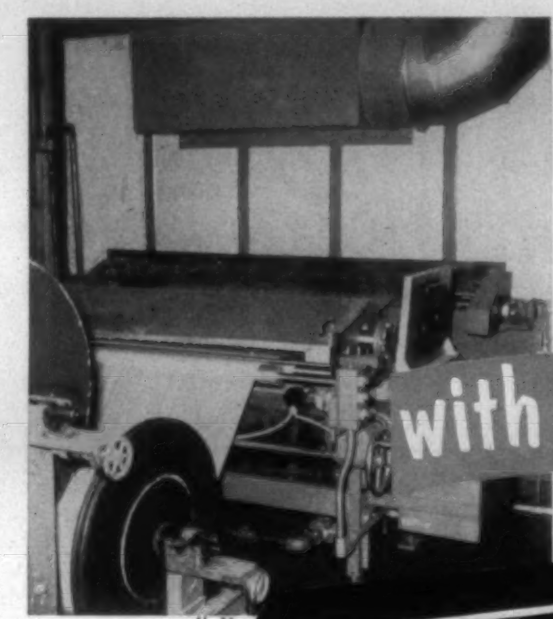
DAYCO AND THOROBRED TEXTILE PRODUCTS FOR BETTER SPINNING AND WEAVING



improve your sizing, printing, finishing . . .

with the Greatest of Ease

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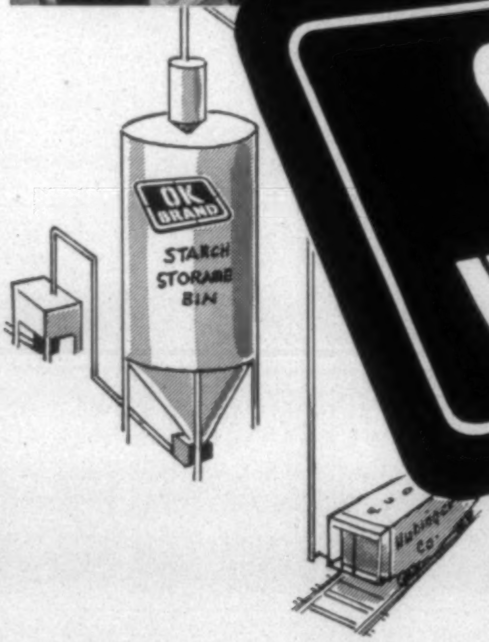
OK BRAND

STARCHES and GUMS



There's a complete line of superior, quality controlled, OK BRAND textile starches and gums to help you get improved finishing, printing and sizing, reduce your costs, and assure you of consistent quality in your production.

You can enjoy all these benefits with the greatest of ease because better, more convenient systems for handling starches and gums have been developed by Hubinger textile experts. One of these trained, experienced textile technicians is near-by, prepared to help with any *special problems* you may have, too. For prompt attention to your needs without obligation, write, wire or phone:

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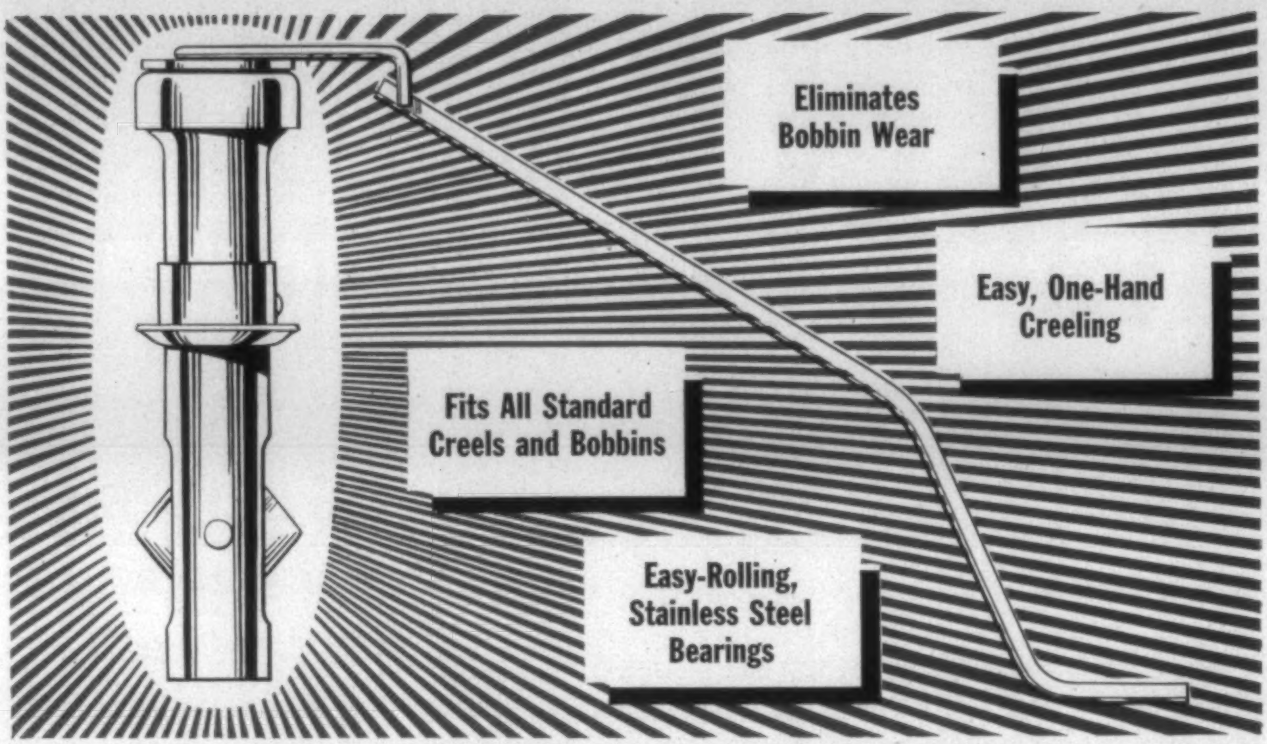
76 YEARS
QUALITY PRODUCTS From CORN


Eliminates Bobbin Wear
Easy, One-Hand Creeling
Fits All Standard Creels and Bobbins
Easy-Rolling, Stainless Steel Bearings

IT'S HERE! THE ALL-NEW BENDIX SPIN-MASTER BOBBIN HOLDER!

Here's the greatest improvement in bobbin holder design in many years—the Bendix* Spin-Master! Made by the manufacturers of the reliable Eclipse Bobbin Holder, the Spin-Master is adaptable to *all types* of creels and to practically *all sizes* of bobbins. Its exclusive nylon latch holds the bobbin securely yet does not gouge or wear the bearing surface. Because of its unique design, the Spin-Master makes creeling a one-hand operation. Its extra-free rolling action is superior to that provided by any other bobbin holder. And, of course, it is thoroughly corrosion resistant. Order today, or, if you prefer, write for additional information.

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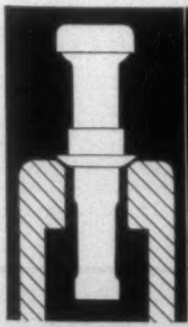
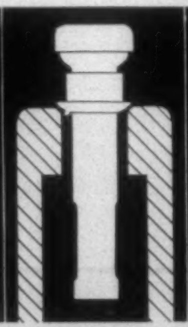
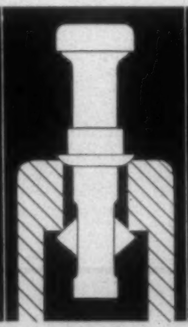
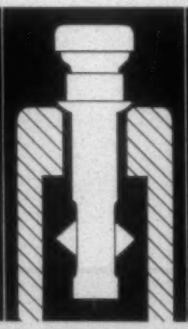
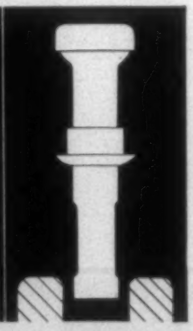
HERE'S HOW IT WORKS


Bobbin holder slides easily and freely into top of bobbin. Nylon latch is concealed within the barrel of the holder.


Bobbin is pushed up against collar of bobbin holder. At this point, latch is still concealed inside the bobbin holder.


As bobbin is allowed to drop, collar of bobbin holder slides down to original position and latch snaps into place, suspending bobbin.


To release bobbin from holder, the bobbin is again pushed up, raising the collar of the holder. Latch is still securely in place.


When bobbin is again allowed to drop, latch retracts into body of bobbin holder, so that bobbin may be easily removed.

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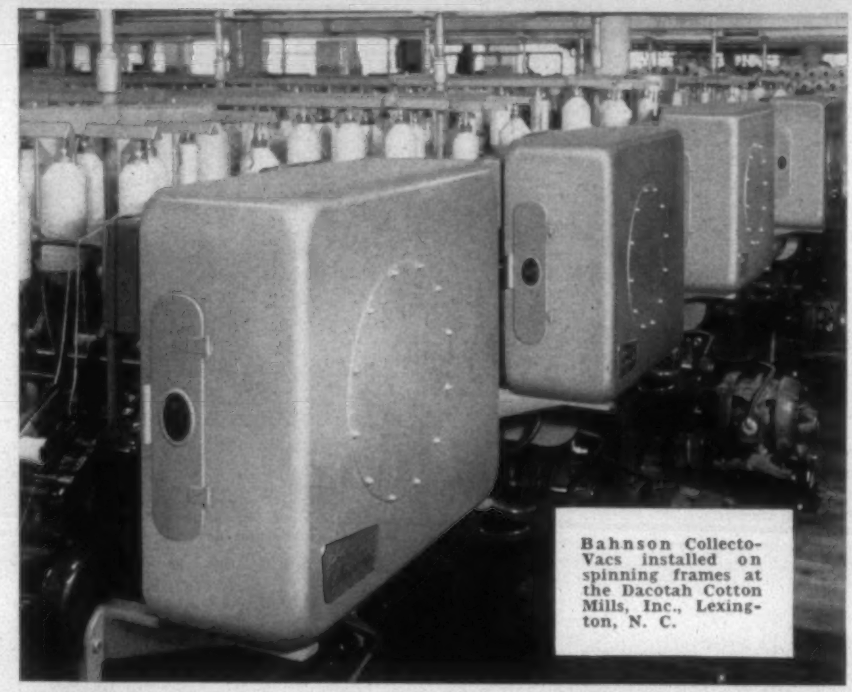
new Bahnson Collecto-Vac

FOR COLLECTING LINT AND BROKEN ENDS



Bahnson Collecto-Vacs installed on spinning frames at the Dacotah Cotton Mills, Inc., Lexington, N. C.

Top textile firms find greater performance advantages with the efficient Bahnson Collecto-Vac

Bahnson
Collecto-Vac

Mill-proved Collecto-Vac features offer you more for your investment as standard equipment

IN MATERIALS: Attractive anodized aluminum flutes — *no warpage or cracking*. Rugged 14 gauge stamped steel collection box.

IN DESIGN: More uniform suction pressure. Scroll type fan discharge to *disperse* motor alley heat, not *concentrate* it.

Belt driven fan for flexibility, or internal motor for economy. (A scroll type fan is used with both designs.)

IN PERFORMANCE: Greater cleanliness and collection of flying lint. Positive end collection the length of the frame. Lower horsepower at same CFM and suction pressure.

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91 of the top 100

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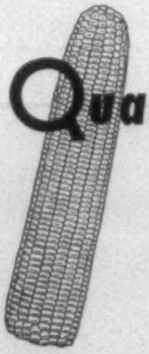
. . . and remember : *technical service in connection with your specific problems is available without obligation*



Quality products

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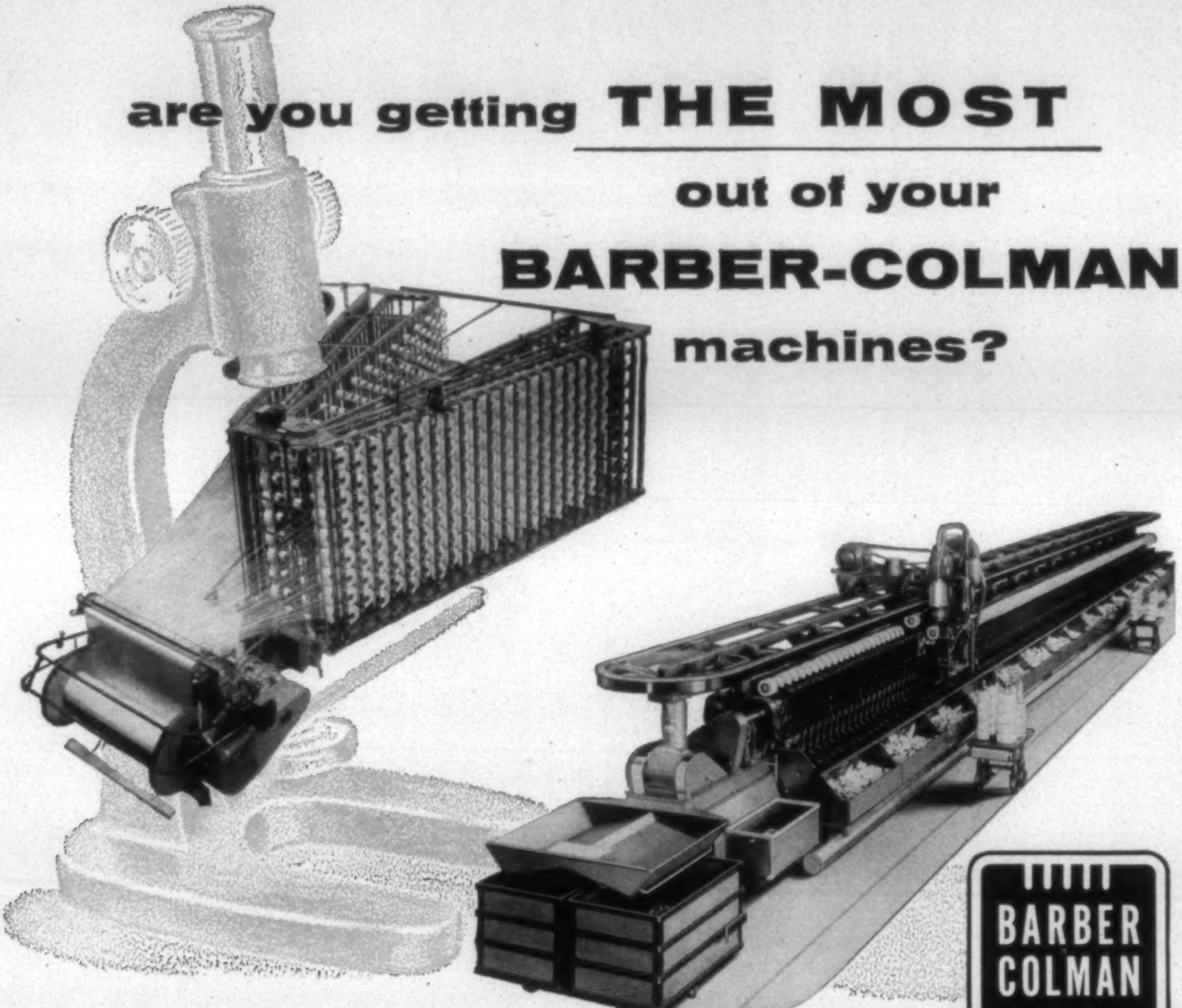

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Any time is a good time to take a close look at your Barber-Colman Automatic Spoolers, Super-Speed Warpers, Warp Drawing Machines, and Warp Tying Machines—to see if they are continuing to deliver their original high performance. You have a substantial investment in these machines, and you are entitled to a continuing return on that investment. It would be a good idea to be sure that nothing in the *performance* of the machines is keeping you from getting that return.

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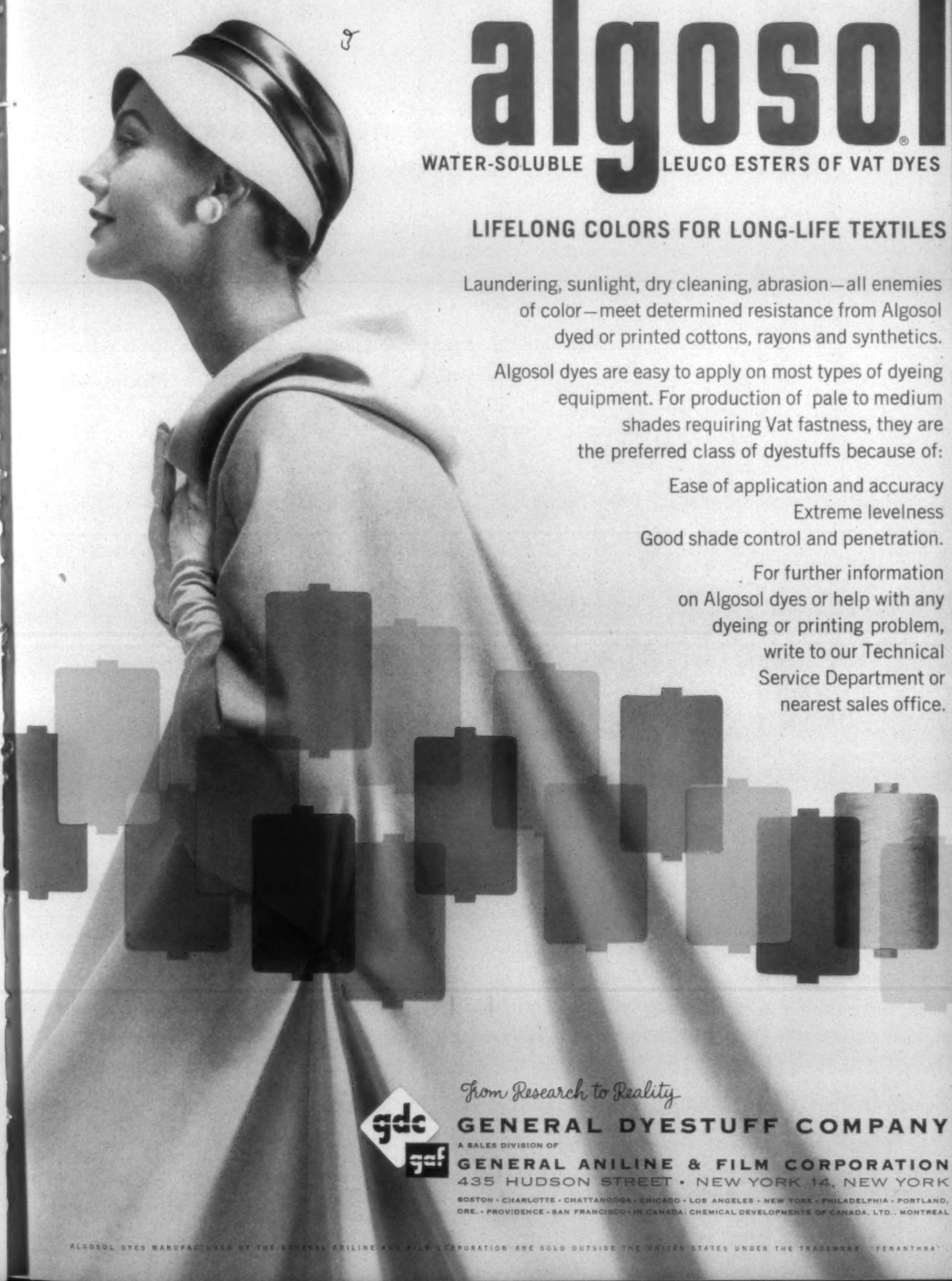

Laundering, sunlight, dry cleaning, abrasion—all enemies of color—meet determined resistance from Algosol dyed or printed cottons, rayons and synthetics.

Algosol dyes are easy to apply on most types of dyeing equipment. For production of pale to medium shades requiring Vat fastness, they are the preferred class of dyestuffs because of:

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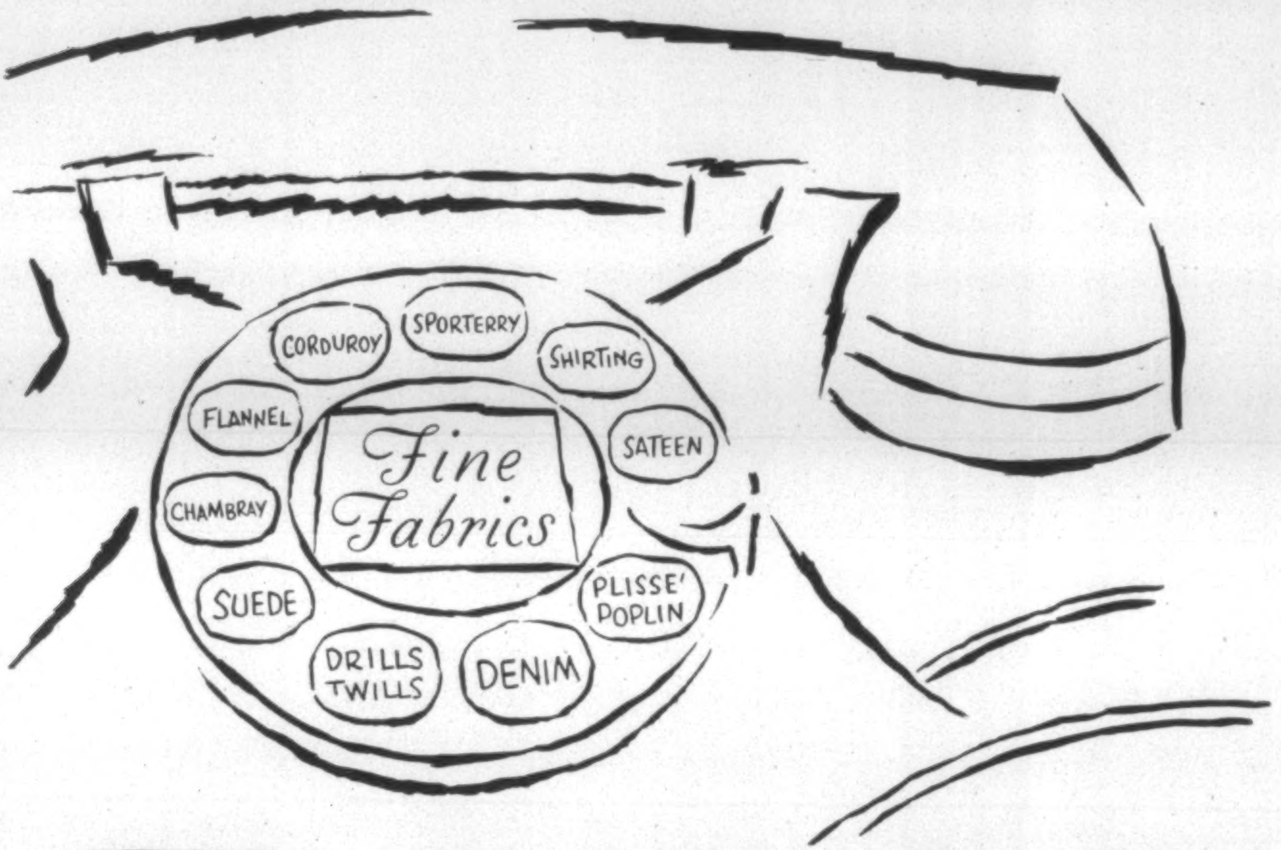

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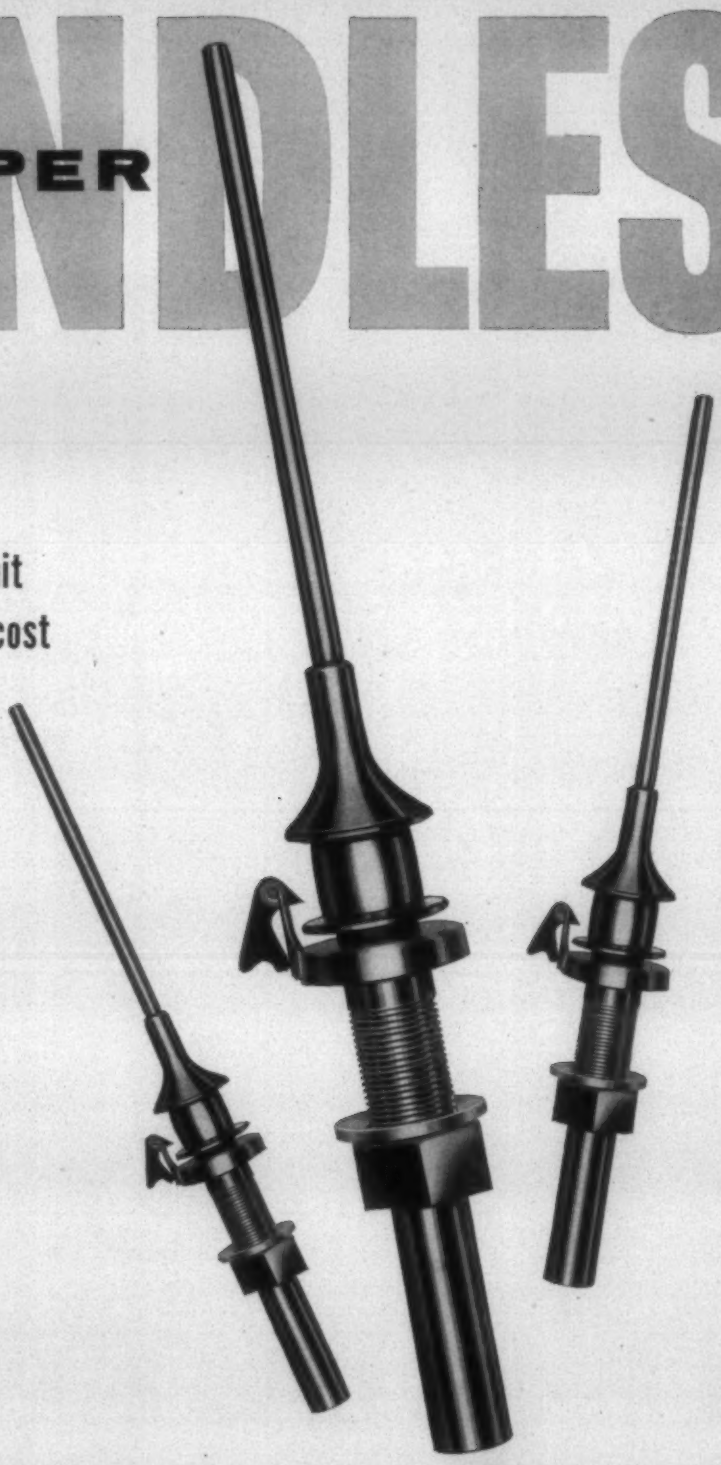

Concave collar and washer design makes "plumbing" easier and faster. Spindle slippage is reduced to a minimum.

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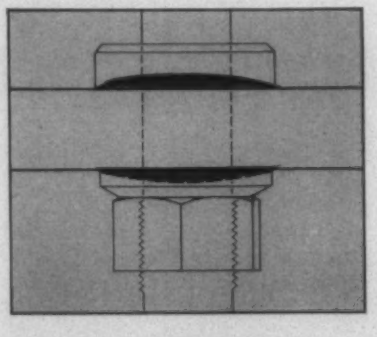
In addition . . . it's an accepted fact that Draper conforming fit maintains a more even bobbin line than any other Top Drive.

Let a Draper spindle specialist analyze your spindle needs today.

Concave collar and washer design makes "plumbing" easier and faster.



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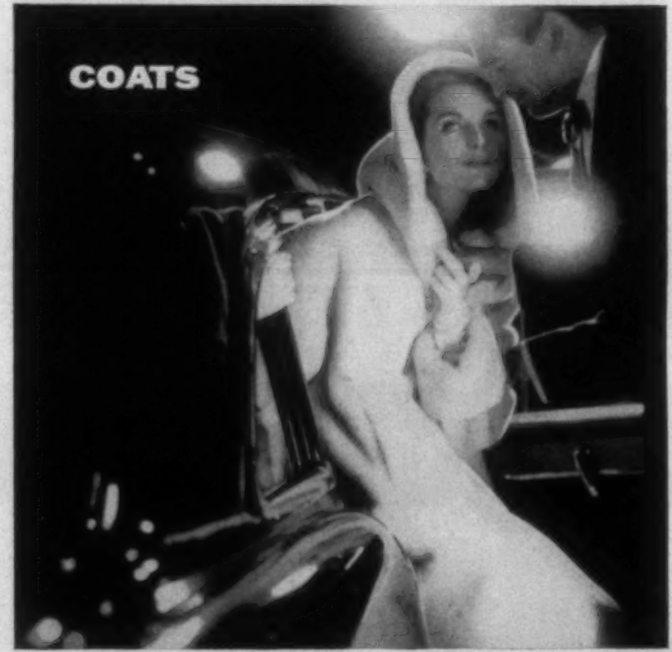

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Whatever the final use . . . Acrilan Quality Control assures your mill of the top-spinning, smoothest-running fiber in its field.

The uniform top-quality of today's Acrilan acrylic fiber is the direct result of a control system based on specifications, tolerances and standards previously deemed impossible for the newer, man-made fibers.

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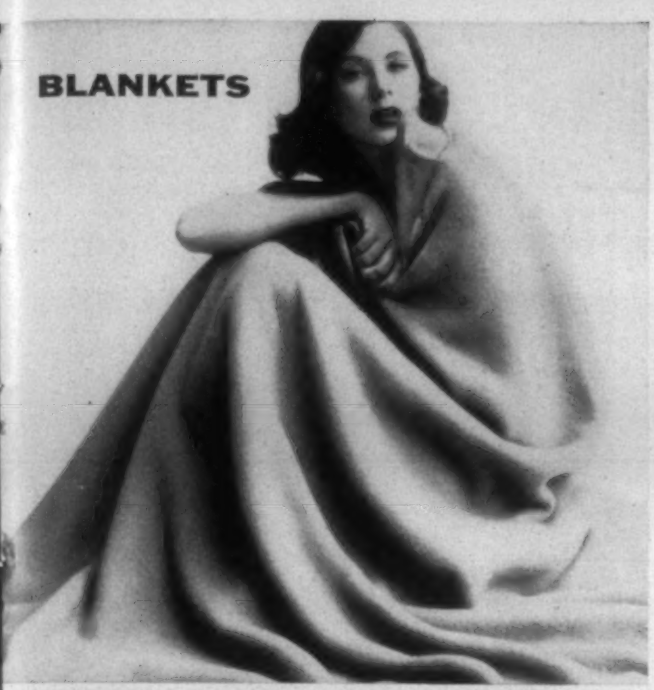

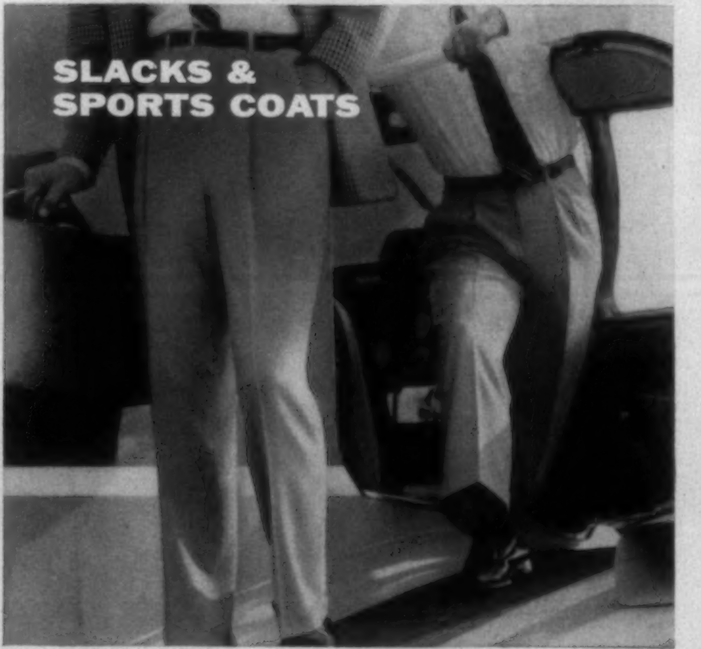

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Smooth, low-noise operation and longer wear are features built-in by Gossett's master technicians.

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We convert 10" and 12" drawing coilers to 14" through 15" in diameter and 36" to 42" in height.

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NEW! Hard Water Tolerance

*Patent has been applied for on the SOLVAY Activated Hydrogen Peroxide Bleaching Process. It is available to bleachers under royalty-free license. Further information available on request.

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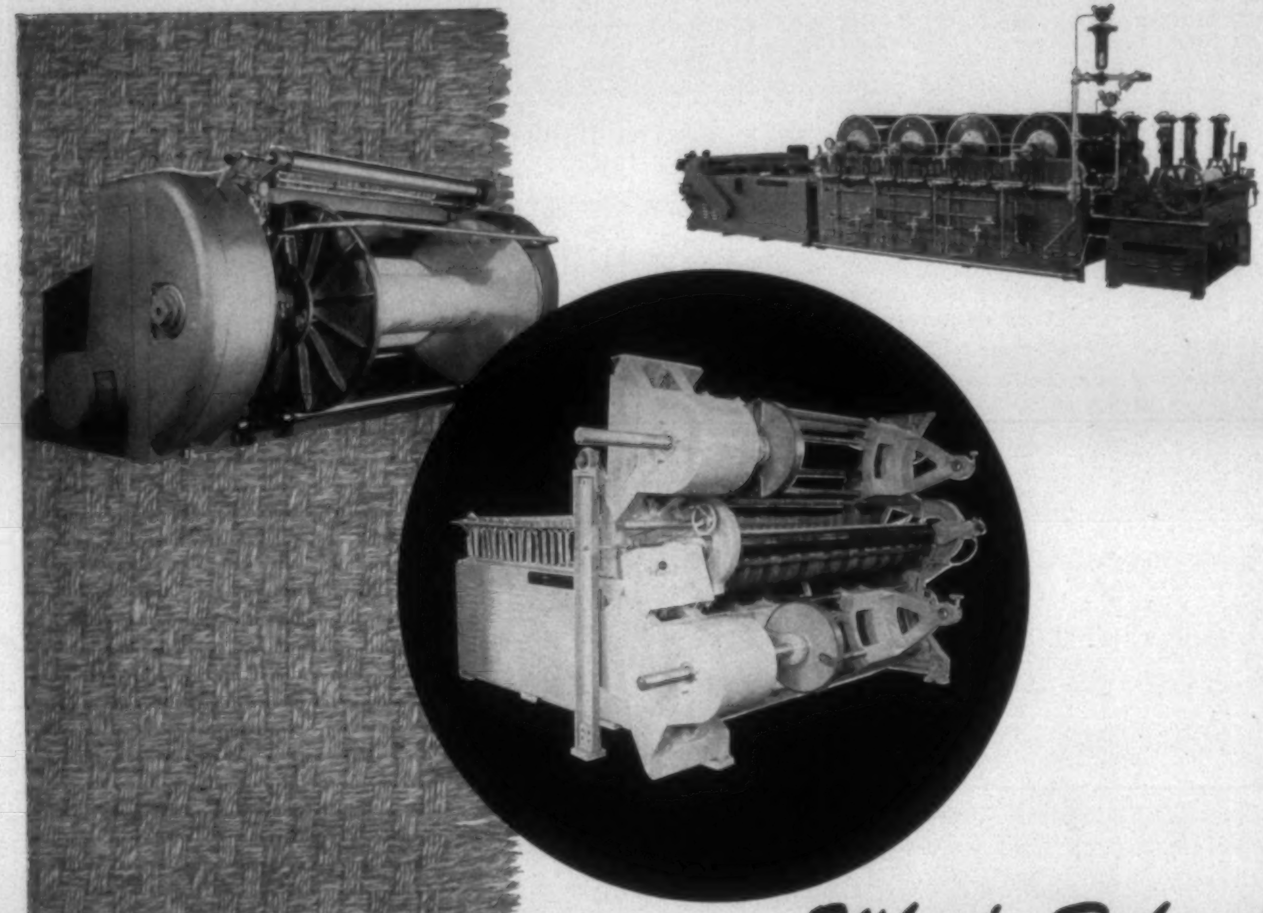

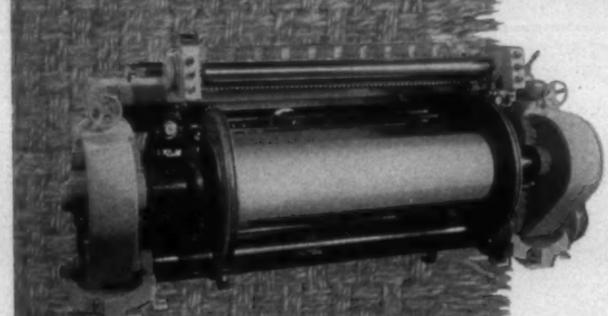

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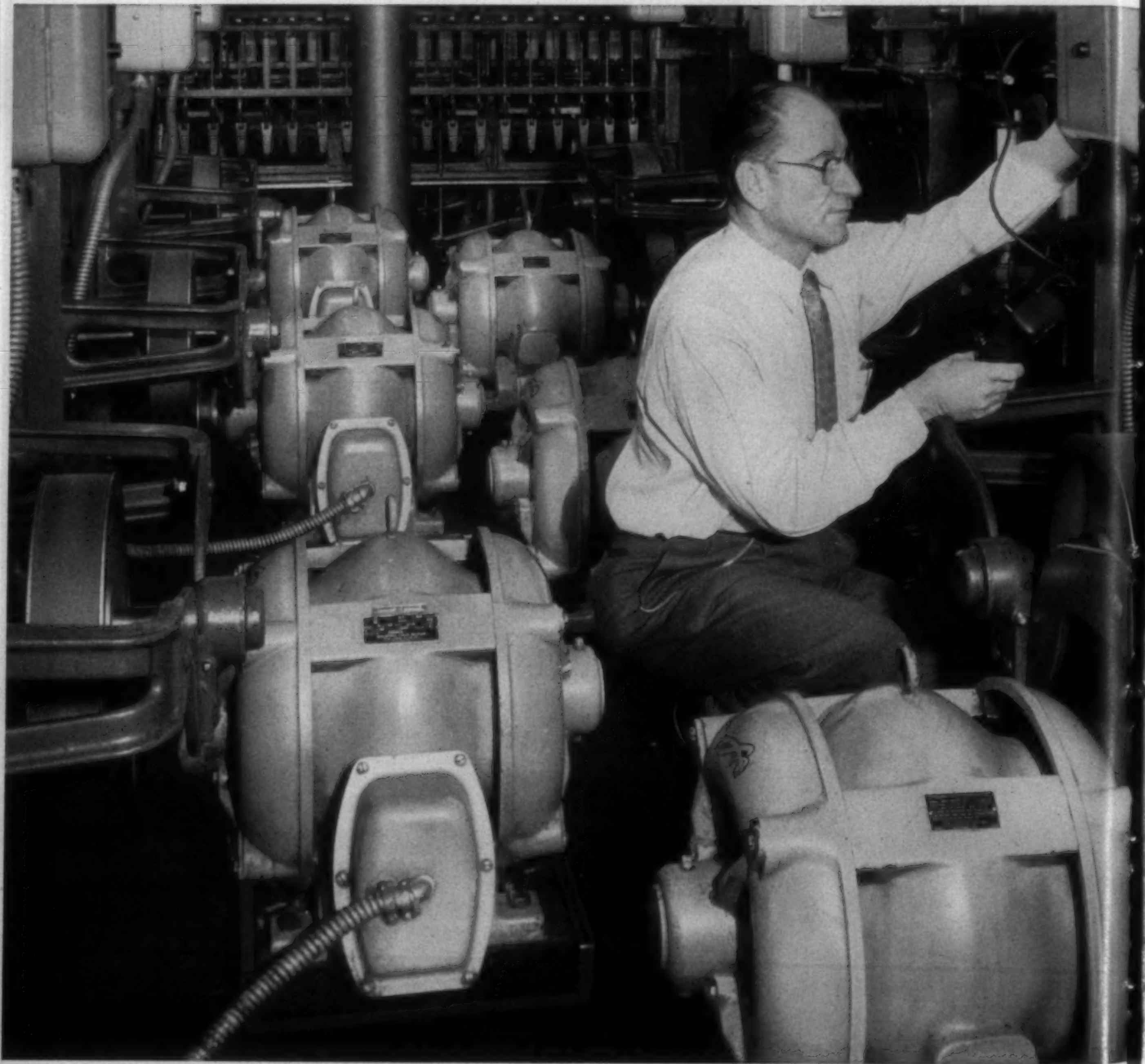

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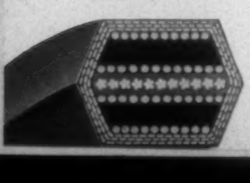

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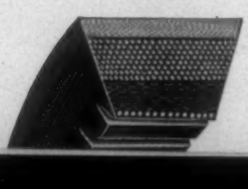

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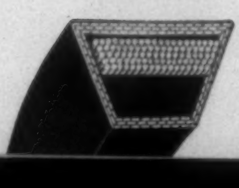

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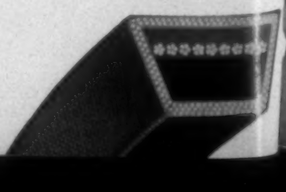

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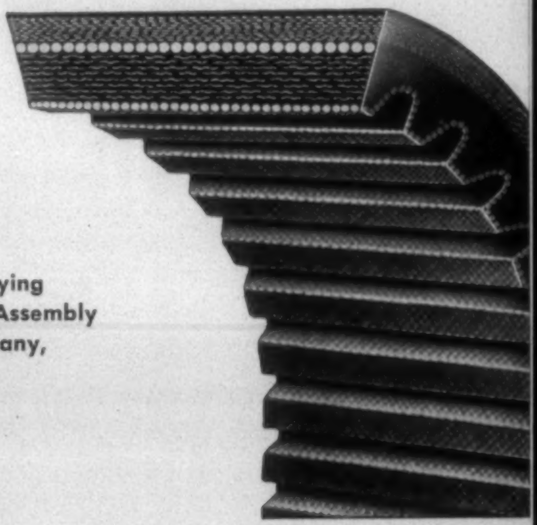

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This installation of Whitin American System Roving and Spinning frames at Jantzen, Inc., Portland, Oregon, has resulted in savings in floor space, labor costs and power consumption.

Photo courtesy Sterling Electric Motors, Inc.

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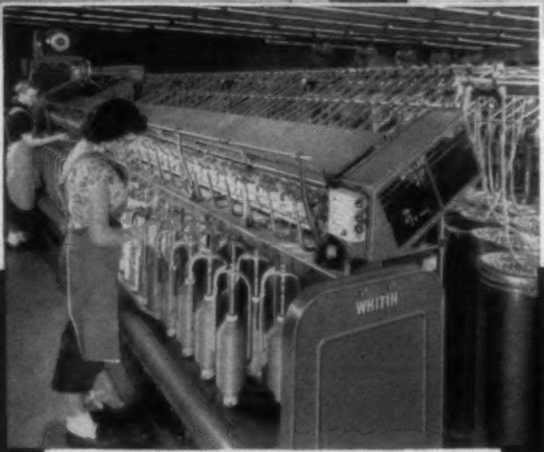
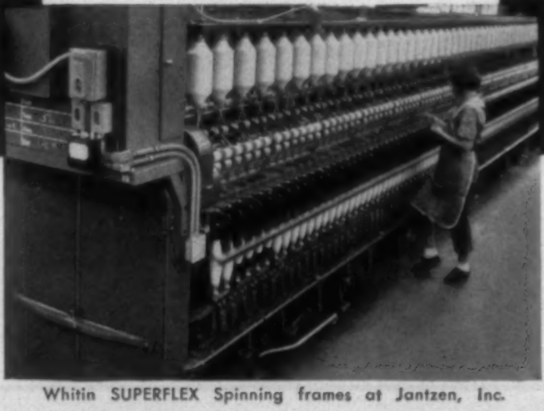


Whitin 10" x 5" QUIK-SET Roving frames at Jantzen, Inc.



Whitin SUPERFLEX Spinning frames at Jantzen, Inc.

Photos courtesy Jantzen, Inc.

The policy of harboring old out-dated equipment on the premise that it has a "few good years left in it" is dangerous! Regardless of how it may be *hidden* in the cost sheets, machinery that is not competitive is a liability!

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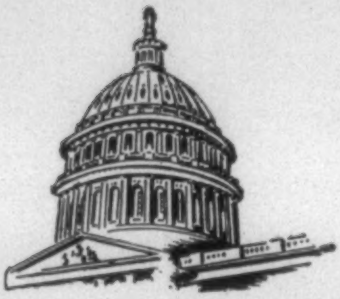

WATCHING WASHINGTON

[Exclusive and Timely News from the Nation's Capital]

What Congress accomplished in the last session depends on who is telling the story; the Democrats call it fruitful and productive. But Republicans define it in terms that Mr. Truman applied to the 80th Congress—"the worst ever." It was as economical as the previous Congress was extravagant, and cut government appropriations between $5 billion and $6.5 billion. Even economy-minded John Taber (R., N. Y.) protested to the House over the deep cuts being made in spending bills.

The Administration did not fare well in the heavy slashes in appropriations, but fortunately escaped a going over on its administrative errors. Only the Treasury and Defense Departments came in for caustic inquiries. The handling of inflation and restrictions on credit were scrutinized, and extravagance and waste in the armed services came in for solid blows and harsh criticism. But the full story of military waste remains to be uncovered in the next session.

With a voice vote the Senate passed the bill (S. 314) to aid the cotton textile industry to enter the world market on more equitable terms. The bill would make 750,000 bales of surplus cotton available to mills at a price competitive with cheap labor abroad, but limit use to the export trade. It goes to the House for action in the next session. The State and Agriculture Departments are opposed to the bill on claims other countries "will react unfavorably to it."

Argument of the bill's author, Mrs. Smith of Maine, is that other countries are exploiting their cheap labor in low-cost goods for export. Through economic aid, she said, they are exploiting industry in this country, too. She pointed out that through aid and tariff concessions, great textile mills have been built up in other countries, and operate in competition with mills here, often with foreign aid as a subsidy. She said great unemployment exists in Northern textile centers under the conditions that have arisen.

The election of Democratic Senator Proxmire in Wisconsin was a complete surprise and a severe jolt to the White House and G.O.P. leaders. Republican candidate Kohler, a 100 per cent Eisenhower Republican, had been counted a certain winner. The election folds up the Republican hope of taking control of the Senate in the next session. The margin of 50 Democrats and 46 Republicans is too great to upset. Republican hope of winning house control in the next election is at a low ebb; they would have to win 17 seats, which seems improbable.

Strategy of the teamsters union in dealing with A.F.L.-C.I.O. became clear as Dave Beck walked out for the second time on the union's ethical practices committee. James Hoffa was left behind to make a long-winded defense of his own actions, and talk himself out of the dilemma produced by his "faulty memory" before the McClellan Committee. The union committee declined to say what was said by Hoffa, or how convincing was his explanation.

Secretary of Labor Mitchell has flashed a bright Administration caution light against new laws to deal with union corruption. He warned against trying to apply anti-trust laws to unions, and against outlawing the union shop. He said the labor movement can go a long way in cleaning up its own abuses, and ban of the union shop will only make labor officials "more demagogic, and diffi-

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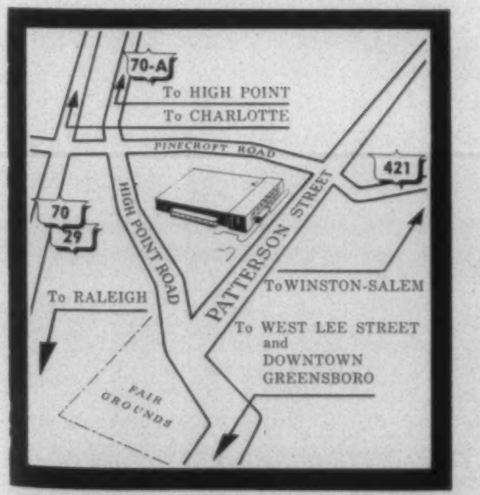

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cult to have constructive collective bargaining with them." He believed any legislation now would be harmful.

The battle over civil rights actually is only beginning, and renewed efforts will be made in the next session of Congress to change its provisions. Intent behind it is to put Negroes into political control in Southern sections where they are numerically predominant. After removal in the Senate of Reconstruction Force provisions, an abortive effort was made to delay final action until the next session of Congress.

Real purpose of the bill, he said, was to enact an adroit plan to mix the races in schools, hotels, swimming pools and recreation spots. The right to vote, he said, was only a secondary consideration. Under terms of the bill, as passed by the House, any form of alleged racial discrimination would have been subject to a court action, and petition for an injunction. As it stands, he said, many Negroes may be registered to vote, under court orders, that do not meet qualifications under state laws.

The bill as passed by Congress is aimed at building up racial minorities in the South, and defeating long standing members of the House and Senate. In Northern states and cities it is intended to corral Negro votes. House members from Southern cities with substantial Negro populations expect to be faced with Negro-supported candidates, intent on their defeat. The ouster effort, as Southern senators and House members believe, will be financed from Northern sources, generally with a Republican background.

Southern senators were joined by Western senators to uncover and remove the bill's hidden features when it came to the Senate. As passed in the House, it was a revival of the Reconstruction Force acts, with new features. Senator Young (R., N. D.) denounced its provisions, and said: "I shudder to think what would have been the result had the Senate passed this bill as it was passed in the House and sent to the Senate."

The real test over civil rights will come sometime after the primaries next Spring, when test cases are taken to court. Negro groups are expected to seek injunctions in each Southern state. Senator Russell says the new act is unconstitutional. This points to some long trials and appeals, and the issue ultimately going to the Supreme Court. In most Southern states registration is permanent, or becomes so when citizens vote in the last two years. Jury trials can be had only in the most limited number of cases.

In extreme cases of refusal to register a "qualified citizen," penalty may be up to a fine of $1,000 and six months in prison. The degree and magnitude of the offense is left to the Federal judge before whom action is brought, and a jury trial is at the judge's discretion. Without a jury trial, the maximum penalty is a fine of $300 and 45 days in jail. Test cases will set the pattern for voting in 1960, when the turnout will be heavier.

Stinging criticism of Vice-President Nixon and Mr. Brownell was made by Senator Russell in relation to the civil rights measure. He told the Senate "there can be little doubt that Mr. Brownell will be constantly pressured by the Vice-President to apply the great powers of the new law to the Southern states, at such time and in such manner as the N.A.A.C.P., of which the Vice-President is the most distinguished member, may demand." He said the South can expect to be overrun by Negro carpet-baggers in enforcement of the measure.

Much of the pressure for passage of the bill came from news commentators and "columnists" who were candidly hostile to Southern states. All of it was South-baiting; generally casting the Negroes in heroic roles, and distorting and adding to propaganda of Negro pressure groups. Some of it came from the atmosphere of anti-South fiction and treatises in recent years, and from maudlin neurotic pictures from Hollywood, intended to defame and befoul the South.

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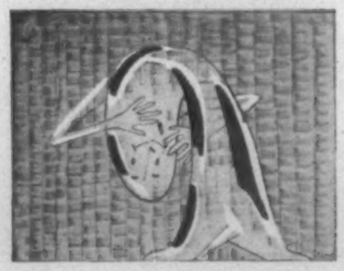

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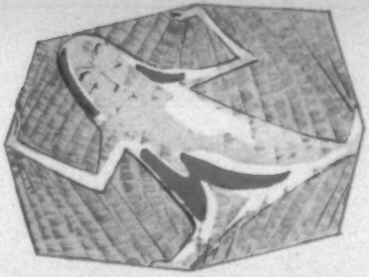

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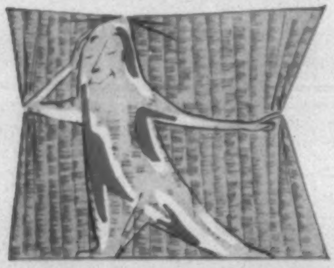

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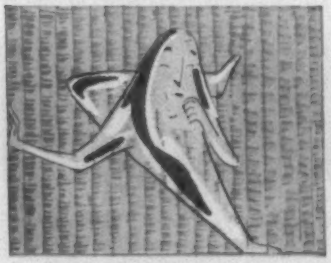

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textile bulletin

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TEXTILE BULLETIN is devoted to the dissemination of information and the exchange of opinion relative to the spinning and weaving phases of the textile industry, as well as the dyeing and finishing of yarns and woven fabrics. Appropriate material, technical and otherwise, is solicited and paid for at regular rates. Opinions expressed by contributors are theirs and not necessarily those of the editors and publishers. ¶ Circulation rates are: one year payable in advance, $1.50; two years payable in advance, $2.00; one year, Canada, $3.00; one year, other countries in Postal Union, $5.00; single copies, 25 cents. ¶ A companion monthly journal, THE KNITTER, is published by Clark Publishing Co. and devoted to the interests of the knitgoods manufacturing industry.

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Textile Merger Fever Is Rising High Again

There isn't anything at the moment as industry-shaking as the sensational textile mergers of the 1954-55 period, but a new rash of mergers and liquidation, which started early in 1953, seems to be spreading rapidly again. The trend has been more or less a continuous one for five years now, rising and then falling off. It doesn't cause the excitement now it once did within the industry, as it seemingly has come to be taken for granted that it's something circumstance and government policy itself has forced textiles to live with on a permanent basis, or at least for some years to come.

The cycle is sharply brought into focus again now by the recent acquisition by Burlington Mills of four mills operated by the Martel group and three of the Henrietta group. All seven of these plants are in North Carolina and South Carolina. These mills make a diversified line of cotton textile products including tickings, sateens, twills and linings. The mills in the two groups, once headed by the late G. E. Huggins, operate approximately 186,500 spindles and 5,325 looms.

Burlington President J. Spencer Love said the seven mills in the Martel and Henrietta groups would continue to operate under their present management, and that the purchase of the properties by Burlington is in line with Burlington's policy of diversified investments. Burlington hasn't been so active in the acquisition field of late, though it was one of the big ones which fared so prominently in the turbulent period of a year ago, its big acquisitions then being Pacific Mills and Goodall-Sanford.

The merger trend is a national one, affecting not only textiles but most other industries. However, many of the obviously important factors behind the textile mergers and mill liquidations are somewhat special ones. The textile industry, almost since the end of World War II, has been hard-pressed. Ranch-style houses, TV sets, luxurious automobiles, as well as competitive inroads by paper and other products, have caused textile's share of the consumer dollar to drop sharply within a few years.

American mills have lost their foreign markets and meanwhile, because of government policy, foreign competition has hurt rather sharply here at home. To top matters off, U. S. mills must buy U. S. cotton at unrealistic and inflated, government-supported prices, while the government sells this same cotton at cut-rate prices overseas because of the huge surplus stocks built up by its unsound farm policy. The tax depreciation schedule on textile machinery is just as unrealistic, as it takes 25 years for a mill to charge off machinery and equipment for tax purposes.

To remain in so highly competitive an industry, a mill must modernize, but it becomes difficult to do so under such circumstances. If companies, large or small, cannot borrow hugh amounts in long-term obligations with which to modernize, many of them are forced, as a matter of necessity, to liquidate or to be absorbed by some giant in the industry with a far-flung, diversified operation.

Fostering the merger trend, not only in textiles but in other fields likewise, has of course been what is called the federal government's "loss carryover" provision in the Internal Revenue Code. Thus, if one big operator acquires another firm that has been losing money, he can under certain conditions apply the amount of that loss as a tax deduction against profits in other branches of his business. Textron's acquisition of American Woolen Co. and Robbins Mills, which so shook the industry a while back, was one of the more spectacular or classic examples of such a huge tax write-off.

J. P. Stevens & Co., with its earlier acquisitions and its acquisition in Midsummer of the Forstmann Woolen Co. and its selling subsidiary, Julius Forstmann & Co. Inc., becomes what is now considered as probably the dominant operator in the woolen industry in respect to the greatest production of high style, high quality and high price woolens. But Stevens too, like virtually all the big operators in the textile manufacturing field, has a well diversified line of output that includes all types of textiles and fabrics. It's simply a matter of not having all eggs in one basket and making for a more flexible and well-rounded operation.

In such a wave of mergers there are numerous liquidations, of course. For instance, Bates Mfg. Co. bought the Lynchburg (Va.) Division of Consolidated Textile Co. early in 1957 and by the middle of the Summer announced it planned to shut down the Lynchburg operation as soon as current production ran out, but beyond that the future plans were not certain. Late in August Bates announced the building and machinery at Lynchburg were up for sale and that it had released its last 200 employees at Lynchburg and closed operations there.

Since the end of World War II, there have been well over 500 liquidations in the entire textile field. Most of this contraction has taken place in New England, but liquidations have also become more frequent in the South. A fact worth remembering, however, is that while the number of mills and employment have shrunk, production has remained fairly constant.

The textile industry has had a rougher time of it than most other basic industries in the country—due to a large degree to matters over which the industry had no control. But the obvious transition period through which the industry is now moving must not be regarded as an indication that the U. S. textile industry is on its last legs.

It just ain't so.

The Next 20 Years

There is probably no author in the field of business economics as well known as Peter F. Drucker, and his projections on the future of the U. S. economy are always intriguing and forcefully presented. His latest volume, *America's Next Twenty Years* (New York: Harper & Brothers), is no exception, and it should be a most welcomed addition to any business library.

Mr. Drucker figures that by 1975 each U. S. worker will have to produce enough to supply not only himself but three and a half other persons, instead of the one and one-half dependent persons now. Thus, if there is no other improvement in the efficiency of capital investment, today's annual capital expenditure of $40 billion will have to be raised to the staggering figure of $100 billion.

At the same time Mr. Drucker reminds of certain inflationary pressures—the growing labor shortage, both in absolute numbers and in terms of training; the drying up of venture capital for new enterprise; and the increasing shortages of physical resources, especially water. He concludes by saying that innovation is the only sure answer to the nation's problems.

Mr. Drucker points out that the more persons become aware of the immensity of the total problem, the more likely it is that the next 20 years will see new social and technical innovations to cope with the times. Mr. Drucker's thoughts are, to say the least, challenging and provocative and are the consequence of many years of thinking and writing in the economic field, and it is quite beside the

TEXTILE INDUSTRY SCHEDULE

— 1957 —

Sept. 27-28 (F-Sa)—**COMBED YARN SPINNERS ASSN.**, The Cloister, Sea Island, Ga.

*Sept. 28 (Sa)—Fall meeting, **PIEDMONT DIVISION, SOUTHERN TEXTILE ASSOCIATION**, Catawba Country Club, Hickory, N. C.

Sept. 28 (Sa)—**PIEDMONT SEC., A.A.T.C.C.**, Hotel Barringer, Charlotte, N. C.

Sept. 28 (Sa)—Fall meeting, **TEXTILE OPERATING EXECUTIVES OF GEORGIA**, Georgia Tech, Atlanta, Ga.

Oct. 2-3 (W-Th)—**CHEMICAL FINISHING CONFERENCE** (sponsored by National Cotton Council), Hotel Statler, Washington, D. C.

Oct. 7-9 (M-W)—Technical advisory committee and board of trustees meeting, **INSTITUTE OF TEXTILE TECHNOLOGY**, Charlottesville, Va.

Oct. 9-10 (W-Th)—Annual meeting, **NORTH CAROLINA TEXTILE MANUFACTURERS ASSOCIATION**, Carolina Hotel, Pinehurst, N. C.

Oct. 10-11 (Th-F)—Fall meeting, **SOUTHERN TEXTILE METHODS AND STANDARDS ASSN.**, The Clemson House, Clemson, S. C.

Oct. 12 (Sa)—Fall meeting, **ALABAMA TEXTILE OPERATING EXECUTIVES**, Thach Auditorium, Auburn.

Oct. 15-18 (Tu-F)—Fall meeting, **COMMITTEE D-13 ON TEXTILE MATERIALS**, American Society for Testing Materials, Sheraton McAlpin Hotel, New York City.

*Oct. 19 (Sa)—Fall meeting, **NORTHERN NORTH CAROLINA-VIRGINIA DIVISION, SOUTHERN TEXTILE ASSOCIATION**, Fieldcrest Mills Inc., Fieldale, Va.

Oct. 21-25 (M-F)—45th annual **NATIONAL SAFETY CONGRESS AND EXPOSITION**, Chicago, Ill.

*Oct. 26 (Sa)—Fall meeting, **EASTERN CAROLINA DIVISION, SOUTHERN TEXTILE ASSOCIATION**, School of Textiles, N. C. State College, Raleigh, N. C.

*Nov. 9 (Sa)—Fall meeting, **SOUTH CAROLINA DIVISION, SOUTHERN TEXTILE ASSOCIATION**, School of Textiles, Clemson College, Clemson, S. C.

Nov. 14-15 (Th-F)—Annual conference on Electrical Applications for the Textile Industry (sponsored by the Textile Industry Subcommittee and the General Applications Committee of the **AMERICAN INSTITUTE OF ELECTRICAL ENGINEERS**), North Carolina State College, Raleigh.

Nov. 14-16 (Th-Sa)—National convention, **AMERICAN ASSN. of TEXTILE CHEMISTS & COLORISTS**, Hotel Statler, Boston, Mass.

Dec. 7 (Sa)—**SOUTHEASTERN SEC., A.A.T.C.C.**, Dinkler Plaza Hotel, Atlanta, Ga.

— 1958 —

Jan. 27-28 (M-Tu)—Annual meeting, **NATIONAL COTTON COUNCIL OF AMERICA**, Phoenix, Ariz.

Feb. 12-14 (W-F)—**COTTON RESEARCH CLINIC** (sponsored by the National Cotton Council), The Carolina, Pinehurst, N. C.

*Mar. 6-7 (Th-F)—Spring meeting, **TEXTILE QUALITY CONTROL ASSOCIATION**, Poinsett Hotel, Greenville, S. C.

Mar. 18-21 (Tu-F)—Spring meeting, **COMMITTEE D-13 ON TEXTILE MATERIALS, A.S.T.M.**, Sheraton Park Hotel, Washington, D. C.

Apr. 10-12 (Th-Sa)—Annual convention, **AMERICAN COTTON MFRS. INSTITUTE**, Hollywood Beach Hotel, Hollywood, Fla.

*Apr. 24-26 (Th-Sa)—Annual convention, **PHI PSI TEXTILE FRATERNITY**, Philadelphia, Pa.

Apr. 30-May 1 (W-Th)—Spring meeting, **THE FIBER SOCIETY**, The Clemson House, Clemson, S. C.

May 19-24 (M-Sa)—**NATIONAL COTTON WEEK**, sponsored by the National Cotton Council of America.

May 26-29 (M-Th)—**NATIONAL PACKAGING CONFERENCE AND EXPOSITION** (sponsored by American Management Assn.), New York Coliseum, New York City.

June 19-21 (Th-Sa)—Annual convention, **SOUTHERN TEXTILE ASSN.**, The Grove Park, Asheville, N. C.

June 22-27 (Su-F)—61st annual meeting, **AMERICAN SOCIETY FOR TESTING MATERIALS**, Hotel Statler, Boston, Mass.

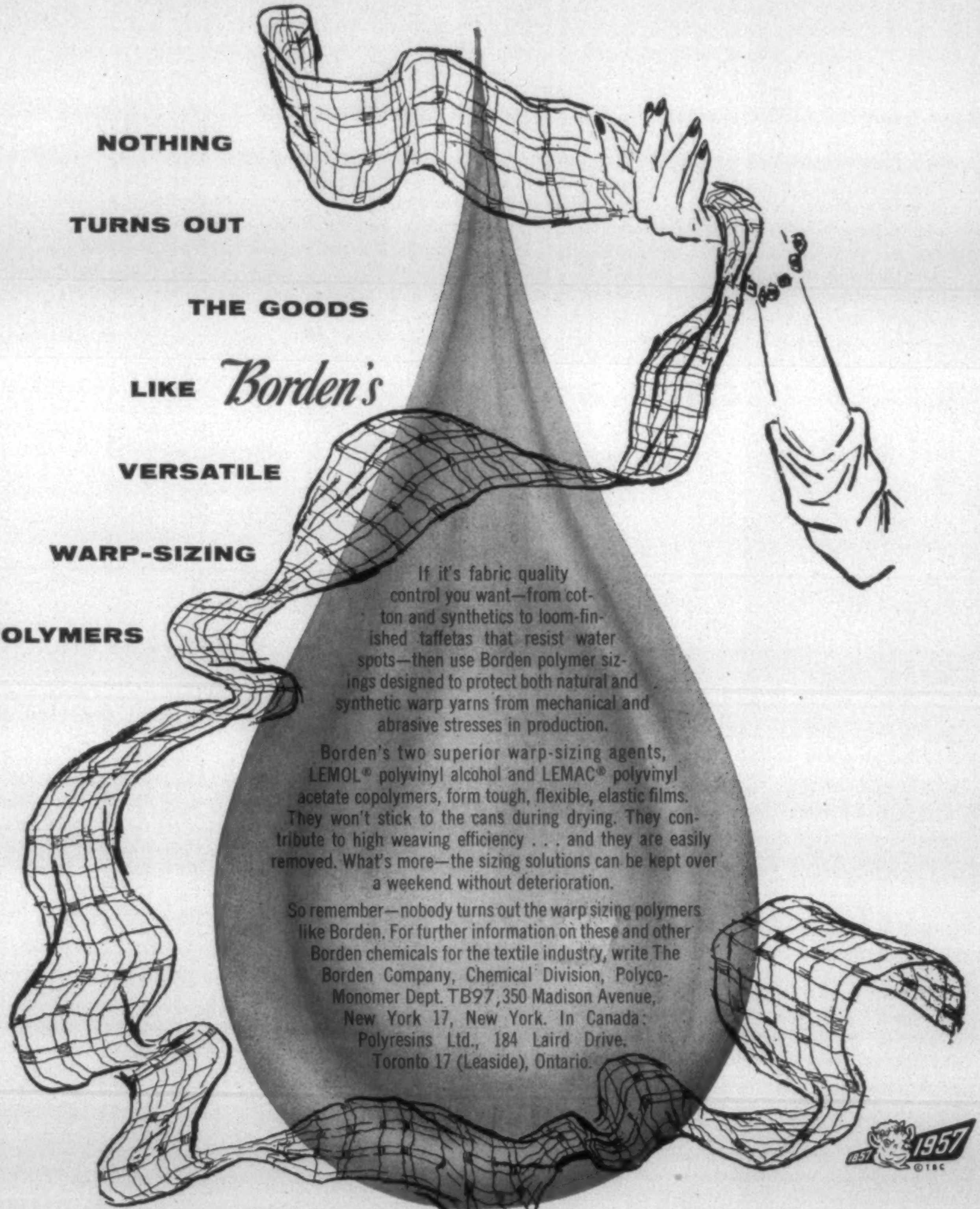
Oct. 6-10 (M-F)—**SOUTHERN TEXTILE EXPOSITION**, Textile Hall, Greenville, S. C.

Oct. 30-Nov. 1 (Th-Sa)—National convention, **AMERICAN ASSN. OF TEXTILE CHEMISTS & COLORISTS**, Conrad Hilton Hotel, Chicago, Ill.

(M) Monday; (Tu) Tuesday; (W) Wednesday; (Th) Thursday; (F) Friday; (Sa) Saturday

****Listed for the first time this month.*** ***‡Tentative listing.*** ***†Changed or corrected from previous issue.***

NOTHING TURNS OUT THE GOODS LIKE *Borden's* VERSATILE WARP-SIZING POLYMERS



If it's fabric quality control you want—from cotton and synthetics to loom-finished taffetas that resist water spots—then use Borden polymer sizings designed to protect both natural and synthetic warp yarns from mechanical and abrasive stresses in production.

Borden's two superior warp-sizing agents, LEMOL® polyvinyl alcohol and LEMAC® polyvinyl acetate copolymers, form tough, flexible, elastic films. They won't stick to the cans during drying. They contribute to high weaving efficiency . . . and they are easily removed. What's more—the sizing solutions can be kept over a weekend without deterioration.

So remember—nobody turns out the warp sizing polymers like Borden. For further information on these and other Borden chemicals for the textile industry, write The Borden Company, Chemical Division, Polyco-Monomer Dept. TB97, 350 Madison Avenue, New York 17, New York. In Canada: Polyresins Ltd., 184 Laird Drive, Toronto 17 (Leaside), Ontario.

IF IT'S A *Borden* *Chemical* IT'S GOT TO BE GOOD!

point to what extent one wishes to agree with him. Rather unusual indeed is his view of automation as a process first and a collection of specialized machines afterward.

He sees the normal condition of the automated factory as one of stability and one of a smoothly continuing, dynamic flow. Thus, he says, if the business office is unable to guarantee this condition, disaster is almost certain to come. In other words, he points out, automation denies to management the luxury of absorbing market changes by arbitrary spurts and cuts at the production level. In his own words he says that "to try to build an automatic factory in a business that has not otherwise been automated is like trying to put a 1957 turbojet aircraft engine in a Model T Ford."

The challenge to worker productivity that he contends will be presented by 1975, it should be said, is based on a projected total 1975 population of 220,000,000. This projected figure is a 40 per cent increase over now; a 33 per cent increase in working age population, less a 9,000,000 increase in college enrollment. It envisions also a decrease in working hours which cuts the net increase in national man-hours worked to a mere ten per cent. He assumes, too, a rise in the standard of living no greater than that of the last 20 years—half of which were depression or war years.

In view of all this, he arrives at the figures of three and one-half dependents per worker as the basic human problem against which the shortages of raw materials, water, trained workers, management and venture capital must be measured. Combatting these pressures he sees the promise of automation and the hope that somehow the colleges will find a way to handle 12,000,000 students in 1975 compared to the scant 3,000,000 in 1955.

A Tale Of Two Cities

A number of events in 1957 have combined to remind us of our nation's humble beginning. Perhaps the biggest reminder has been the eight months' long Jamestown Festival, upon which some $25,000,000 was spent on the preparations. And several millions of American this Summer have made a holiday pilgrimage to the site of the first permanent English settlement in the New World.

Jamestown, site of the colony established in 1607, is but one point in an historic triangle, which includes Williamsburg, with its flowering of Colonial culture and where leadership in an emerging nation developed, as well as Yorktown, site of the decisive battle in the Revolution. Actually, the town of Jamestown disappeared after the seat of government was moved to Williamsburg in 1699, and what is seen now is a remarkable restoration at Jamestown of the old fort and glass factory along with the original sailing ships of the settlement.

To be honest, we'd somehow always thought of Jamestown as being a town. But, we now know, the town as such disappeared after an existence of not quite a century; yet not before Jamestown had laid the foundation for many of our cherished traditions of freedom. It was here, among other things, that the first representive legislative assembly in the New World was held in the year 1619.

Jamestown was 13 years before Plymouth. Actually, St. Augustine, Fla., is the oldest city in the United States, since it was founded in 1565, half a century before the colony on the James River. A distinction has to be made, however, since while St. Augustine is deeply rooted as a part of us now, it was apart from our English colonial beginnings, being as it was a Spanish outpost.

These things, of course, are probably well known to every school child. But what is rather a striking coincidence, and is a fact little known to most Americans, is that there's another Jamestown, founded not so early as the Virginia tidewater colony, but early nevertheless, and which also disappeared after a few decades, only to be dramatically revived in the last few years—and in a manner that again strikes a rather amazing coincidence.

This is the Jamestown in South Carolina that is roughly 400 miles south or southwest of the Jamestown in Virginia. This Jamestown was laid out in 1706, roughly a century after the Virginia colony, and today it again bobs up at you right out of the Santee Swamp wilderness—a romantic and picturesque part of the South Carolina Low Country, where silk, indigo, rice and fabulous Sea Island cotton each had its day in the sun until removed, respectively, by economic reversal, the advance of chemistry, the Civil War and the boll weevil.

The French were responsible in the main for the short-lived silk culture. While the Huguenots or French Protestants found refuge also in some other New World colonies during the last quarter of the seventeenth century and the first half of the eighteenth, they settled largely in and around Charles Town. In the province of Carolina they early set up a factory where they mixed wool with silk in the manufacture of shawls and rugs that attracted attention in Europe.

The largest Huguenot settlement in the province outside of Charles Town itself was along the Santee River, some 60 miles to the north—an area known as French Santee, later to be a part of the baliwick of that illustrious Huguenot, Francis Marion, the Swamp Fox. The only town in French Santee in the beginning was Jamestown. It never flourished, owing to Spring floods and climate. The Huguenot settlers tended to migrate a little farther upstream to more suitable sites and climate and Jamestown was soon largely deserted, desolate, virtually reclaimed by the wilderness. Subsequently, in a later day, Jamestown came to consist of merely a few crossroads' stores near the once mighty Santee, whose flow several decades ago became greatly reduced by the impounding of its waters in the vast Santee-Cooper hydro-electric project reservoirs.

And now more recently the French, in a sense, have returned—after more than 250 years—to the wilderness on the south bank of the Santee that was once Jamestown. Beside the ruins of old Jamestown, or what precious little remains of them, there now hugs the flat earth a totally enclosed, 150,000 square foot, one-story wool combing and scouring plant—about as modern, certainly, as there is to be found anywhere in the world. It is the newest unit in the far-flung industrial empire of Amedee Prouvost & Co. of Roubaix, France, one of the two largest wool processing firms in the world.

It's rather striking—and an unusual coincidence—that neither of the two Jamestowns, one coming to life a century before the other, existed as such for very long. And both of them have been revived or have come to life again, so to speak—yet in a vastly different way.

It's great to start the day this way!!

ENJOYING THE CONTINUING BENEFITS FROM A SACO-LOWELLIZING PROGRAM

This mill executive has solved a major problem — how to better his competitive position. He's done it in the most simple way known to textile men — with a SACO-LOWELLIZING PROGRAM custom made to his particular mill. Basically, this program does 4 things:

1. **Helps you make better use of floor space, thereby improving production flow.**
2. **Coordinates the successive steps in processing.**
3. **Reduces waste, spoilage and unnecessary handling of stock.**
4. **Helps you realize the greatest economies in operating and maintenance costs.**

A SACO-LOWELLIZING PROGRAM IS YOUR ANSWER TO THE QUESTION OF BETTER MILL OPERATIONS AND INCREASED PROFITS. Contact your nearest Saco-Lowell Sales Office — they will have an engineer prepare a "Forecast of Savings" based on a SACO-LOWELLIZING PROGRAM prepared for your mill. There's no obligation.

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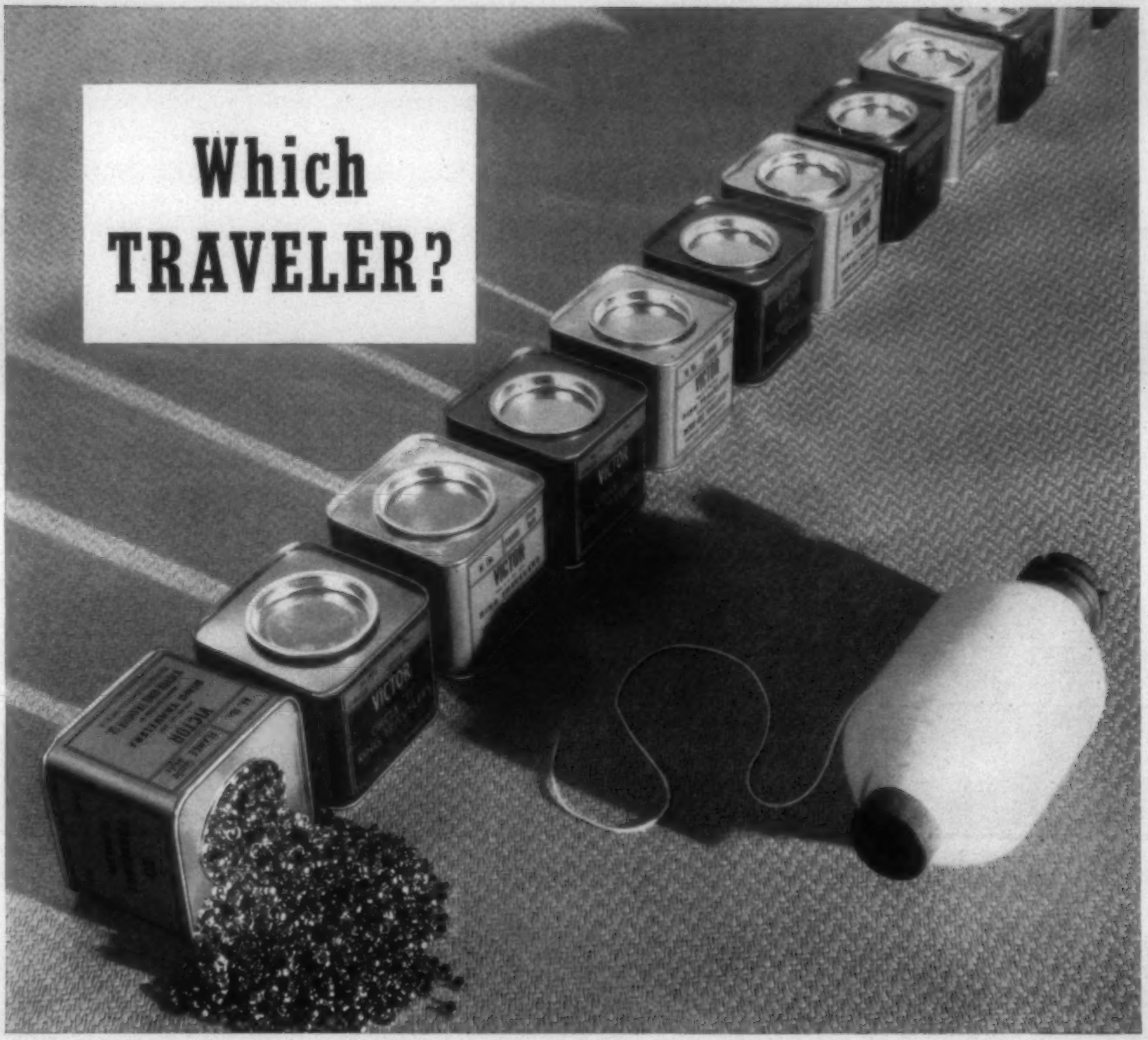
Shops at BIDDEFORD and SACO, MAINE, and SANFORD, N.C. Sales Offices CHARLOTTE · GREENSBORO · GREENVILLE · ATLANTA



Which TRAVELER?

NO two fibers run exactly alike. For example, a 20's synthetic or blend yarn requires a traveler of a different size and type than that used in running cotton yarn of the same number, for best results in spinning.

"Guesswork" and haphazard probing to find the right traveler uses up valuable time, puts you "on the spot".

If your ends down are excessive, if your quality and production are off, make the one smart move that has helped so many mills gain greater productivity. Talk over your trouble with a Victor Service Engineer.

Mill-trained, every Victor Service Engineer is a *specialist* in traveler applications, has often helped clear up the most puzzling spinning and twisting problems. Whether you are running conventional fibers, synthetics, or blends — he can often make other valuable suggestions for improving yarn quality and production.

Write, wire or phone our nearest Victor office for prompt, friendly service. There's no obligation.

Keep a Step ahead with

VICTOR Ring Travelers

VICTOR RING TRAVELER DIVISION

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AAP DYEHOUSE AUXILIARIES

Four dependable products to simplify your dyeing and printing operations and give you consistent color quality and fastness. **LEVELENE***—a retardant, dispersant and vat color stripping agent. **FASTOGENE***—to improve water fastness of dyed cotton and rayon in a simple after-treatment. **STABILON***—for better napthol dyeing . . . brightens shades, minimizes crocking. **DEPUMA***—superior antifoam for printing, dyeing and soaping. For working samples, write or call your A.A.P. representative at our nearest branch.

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AMERICAN ANILINE PRODUCTS
A UNIT OF KOPPERS COMPANY, INC.
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For the Textile Industry's Use

— NEW MACHINERY, EQUIPMENT AND SUPPLIES —

Shearing Machine

New style shearing machine (Curtis & Marble Machine Co.)

The Curtis & Marble Machine Co. has developed a new style shearing machine which can be adapted to high pile fabrics or velvet by simply changing the complete set of cutting parts. The shearing of high pile fabric having a pile from 1/8" to 1/2" thick is done with a new type of movable rest and variable speed raising brush over which the fabric passes under even tension at the predetermined height desired for shearing. This movable rest, of special design, is shaped so that the pile face, upon reaching the cutting parts under a forced suction draft, has every fiber standing erect at the instant of the cutting operation.

The shear action is a scissors-like one which takes place when each of the 12 file-cut alloy steel tip spirals revolving at 1,200 r.p.m. pass across the ledger blade. The angle formed between the revolver spiral, rest and ledger blade is one of 85°, which is considered critical and is controlled by a wheel regulator. This wheel regulator has a numbered dial, so that it is possible to make exact settings which can be duplicated at any time to obtain the same shearing results on the same type fabrics.

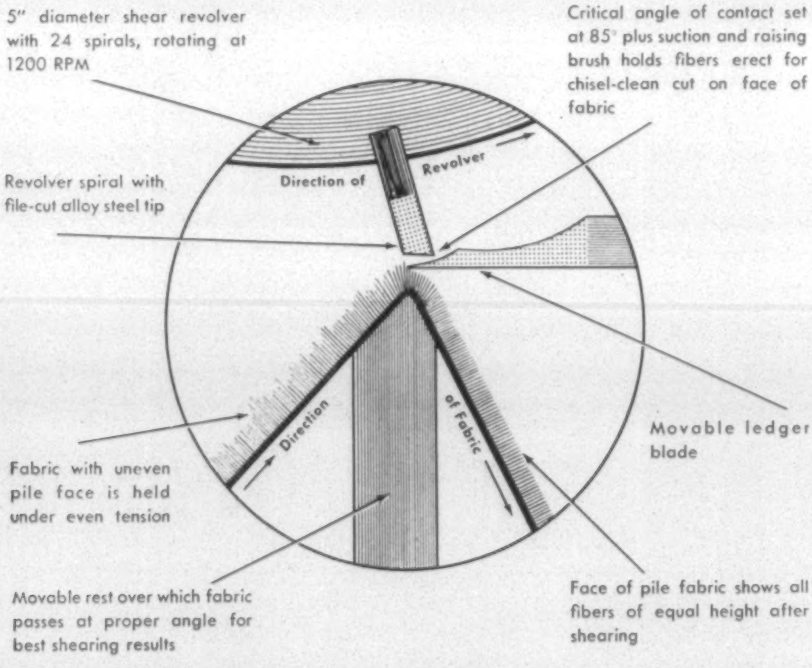
Cloth speed is controlled by a variable speed transmission which operates between the speeds of 8 and 24 y.p.m. The shear is adaptable to tandem operation. It has been found that tandem operation is sometimes desirable on certain types of synthetic fabric having considerable abrasive qualities.

It is a precision machine engineered to perform exacting results so necessary to properly shear these new types of synthetic fabrics, both loomed and loop knitted. Curtis & Marble announces that it will manufacture this shear for both 60" and 72" goods. The machine will be powered by a total of 4½ h.p. and will include cloth roll feed stand and back arms. A cloth folder can be furnished where required. The over-all length of the machine, including the cloth roll feed stand, will be 78" and the height, without the back arms, will be 54". The over-all length with back arms will be 118" and the height 110".

The research and development department of Curtis & Marble offers to arrange appointments with manufacturers to run their own goods through this new shear so they can see the actual operation.

(Request Item No. I-1)

HOW HIGH PILE FIBERS ARE GIVEN CHISEL-CLEAN CUT AT THE CRITICAL ANGLE OF CONTACT


5" diameter shear revolver with 24 spirals, rotating at 1200 RPM
Critical angle of contact set at 85° plus suction and raising brush holds fibers erect for chisel-clean cut on face of fabric
Direction of Revolver
Revolver spiral with file-cut alloy steel tip
Direction of Fabric
Movable ledger blade
Fabric with uneven pile face is held under even tension
Movable rest over which fabric passes at proper angle for best shearing results
Face of pile fabric shows all fibers of equal height after shearing

Velon Filament

A new Velon yarn, called Velon LP, has been announced by the Firestone Plastics Co. The new yarn is a low pressure or linear polyethylene monofilament and is the most recent addition to the Velon family. The new product is especially suitable for webbing for outdoor furniture and broad fabrics for casual upholstery and automobile seat covers. Velon LP promises to bring many advantages because it is especially high in tensile and knot strength. The new product has high abrasion and moisture resistance as well as excellent flex life. Velon LP has good color stability. Some colors have withstood as many as 800 to 1,500 fadeometer hours with no sign of change.

(Request Item No. I-2)

Detergent Acids

Three new base detergent acids, identified as Tenn-Acids 820, 873 and 864 are now available according to a recent release from the marketing research and development department of the Tennessee Corp. These new Tenn-Acids offer a simple and practical method for the economical preparation of concentrated, low cloud point, liquid detergents, based upon alkyl aryl sulfonates for the textile industry.

(Request Item No. I-3)

Bulk Yarn Process

A process for developing a modified stretch or bulked yarn by post treatment through heating of crimped yarns has been announced by Deering Milliken Research Corp. The company said that its process constituted a partial development of the crimped yarn to produce desirable bulked properties such as softness and drape. The process is applicable to the modification of loft and stretch or bulked yarns produced

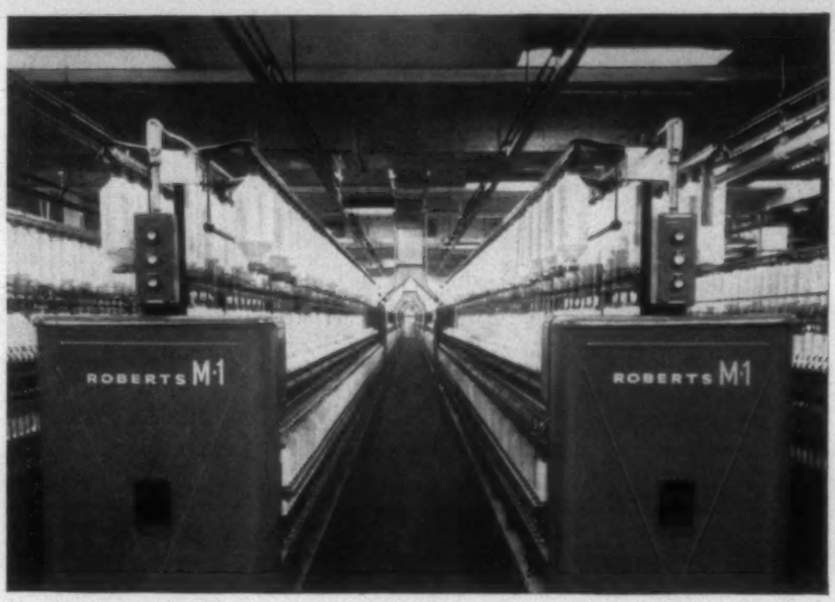
MORE THAN 2½
MILLION SPINDLES
NOW EQUIPPED WITH
ROBERTS HIGH DRAFT

ROBERTS SPINNING NEWS

PUBLISHED BY
ROBERTS COMPANY
SANFORD,
NORTH CAROLINA

VOL. 12 SANFORD, NORTH CAROLINA NO. 3

ROBERTS SPINNING FRAMES SET TODAY'S STANDARD FOR PRODUCTION, YARN QUALITY AND INVESTMENT



Roberts Spinning is setting today's standard for comparison in high drafts, package sizes, roving bobbin sizes, front roll speeds, ends up, yarn break factor — and at the lowest investment cost per spindle.

The Roberts M-1 Spinning Frame is simple and straightforward, free from radical innovations or gadgets. Its design has already been tried and proven in many successful applications. It embodies all the ball bearing features most wanted in a modern frame, giving highest production and lowest maintenance.

Roberts Double-Apron Drafting produces highest break factors, best yarn evenness and lowest ends down in a range of drafts from 10 to 60, for yarn numbers from 2's to 100's, in cotton, synthetics with staples up to 3 inches long, or blends.

Large package flexibility is an important feature. One basic model of the Roberts M-1 Spinning Frame is adapted to run warp bobbins with lengths from 10 inches to 12 inches as well as filling quills. Standard gauges from 3 inches to 4½ inches can be arranged to employ the maximum desirable ring size suitable for the yarn number and twist constant.

The frame chassis is of rugged construction. The working motions use ball bearings for every turning and oscillating motion where practical. The all-ball-bearing head design is outstanding in its simplicity and flexibility.

All gears in the head are hardened and have one pitch, one width, one bore and one keyway, making them completely interchangeable. Greased-for-life bearings are used in the head and all plain bearings and studs are eliminated. Draft and lay constants are adjusted simply over the complete range of yarn numbers.

Standard equipment includes Roberts Ball Bearing Spindles, Roberts built-in UnitVac Suction Cleaning. Roberts AeroCreels are available in every desired package size, single or double.

ALL THREE LINES IN TOP ROLL SUSPENSION USE BALL BEARINGS

The Roberts Ball Bearing Top Roll Suspension System uses double-row ball bearings in front, middle and back lines and incorporates many other important design advantages.

Cots have ½" hole diameter, revolve together making lap removal simpler, and are buffed on standard equipment, without attachments. Full length revolving clearers are used.

Front and back rolls are interchangeable making sequence buffing possible.

The double-row bearing raceways are ground directly into ½" shafts. Bearings are grease-packed for life and a 2-piece labyrinth seal protects them from lint entrance and from roll picker damage.

The system has controlled self-alignment. Conventional deadweighting or new spring weighting is optional.

An alternate arrangement also available employs a ball bearing top roll and special suspension on the front line only with Roberts Cap Bars and solid top rolls on middle and back top rolls.

Roberts also continues to offer its No-Oil Cap Bar and Saddle system for all three lines, now installed in more than 2½ million spindles.

SPINNING MODERNIZATION AT LOWEST COST

The cost-cutting, performance, and quality features of Roberts Spinning can be obtained through changeovers to the mills' existing spinning frames, or through rebuilt frames supplied by Roberts, as well as Roberts M-1 Spinning Frames.

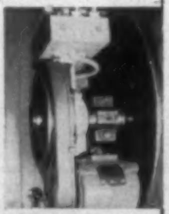
Changeovers can include drafting systems, spindles, creels, suction cleaning, tape drive, gearing, or any combination of these to provide the maximum return for minimum expenditures.

Roberts Model 55-R Rebuilt Frames provide complete new spinning performance making use only of non-functional support members of older frames, thus affecting a substantial saving.

Roberts M-1 Spinning Frames are excitingly new from the ground up, with all-ball-bearing features. They are available in 39-inch, 36-inch, and the space-saving 25-inch widths.

The *New* Precision Card Drive *Complete Compact Safe*

Complete:
A preassembled package unit including motor, drive, and control box. No extras to buy.



Compact:
Requires same space as pulley units.
(Top view)

Quick Installation:
Just slide on cylinder shaft — bolt — and connect power.

Smooth Drive:
Rheostat control starts smoothly and accelerates without jerking or overloading. Inches cards into position for settings and adjustments.

Safe:
Eliminates exposed pulleys, belts and drives. All parts of the Precision Drive are completely enclosed and control box is easily accessible.

Tops in Efficiency:
Eliminates costly down time due to line shaft and belt maintenance. Smooth positive drive improves quality.

Modernize your cards with the Precision Electric Clutch Card Drive. Write for Bulletin 225 for complete information.

Precision Gear & Machine Co.
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Charlotte 1, North Carolina

by other processes. Applications for patents on both the process and the apparatus employed are pending, according to the company's announcement.

The equipment used for this process is adaptable for installations on ring twisters. It is comprised of overfeed rolls and means for heating the yarn under controlled conditions of feed and delivery. Licensees of the company's process for producing elasticized yarn by edge-crimping automatically have a license to employ this post treatment on yarns produced by this process at no increase in royalty, according to the company. (Request Item No. I-4)

Photoelectric Stop Motion

Lindly & Co., manufacturers of electronic and automation instruments for the textile industry, has announced an automatic end break detector for detection of broken ends of yarn in beaming operations. The warper is stopped automatically by the device. The company says that 6 major advantages are gained by installing the equipment which consists of a highly sensitive photoelectric scanning system.

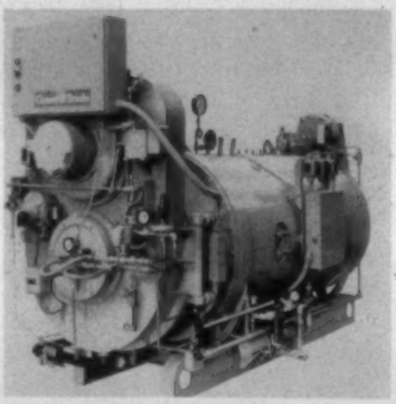
The device eliminates conventional drop wires used in beaming operations as well as the maintenance and cleaning necessary to keep a drop wire stop motion functioning properly. Scuffing of yarn due to movement of the guides is also eliminated. The use of the accumulator which frequently damages yarn is minimized or eliminated. Use of the unit results in decreased tension by the elimination of individual yarn guides necessary for the operation of a drop wire stop motion. Most important, however, is the drastic reduction in lost ends during the beaming operation because of instantaneous detection. (Request Item No. I-5)

Grade A-C Polyethylene

The Semet-Solvay Petrochemical Division of Allied Chemical & Dye Corp. has announced a significant expansion of production facilities for emulsifiable A-C Polyethylene 629. Since its introduction approximately 2 years ago this water emulsifiable form of A-C Polyethylene has gained rapid acceptance. Sizings incorporating the product improve the behavior of textile materials during processing and through weaving operations. Finishes based on A-C Polyethylene impart improved abrasion and soil resistance, smooth hand, fine drape and improved sewability. The product is used for both natural and synthetic fibers. (Request Item No. I-6)

Cleaver-Brooks Oil Heater

A new direct fired oil heater, known as the Industrial Peak-Temp, for heating transfer oils or other liquids to temperatures up to 600° F. has been announced by Cleaver-Brooks Co. The heat transfer oils may be circulated through coils, molds, jacketed vessels and other heat exchange equipment to provide higher temperatures than can be economically obtained with high pressure steam. Forced internal circulation design of the new heater provides high velocity flow of the heat transfer oil over the heating surfaces. Uniform oil temperature eliminates hot spots, coking or deterioration of the heat transfer oil. A simple fire brick ring in the burner throat is the only refractory used in this new design.



The Industrial Peak-Temp direct fired oil heater (Cleaver-Brooks Co.)

The Industrial Peak-Temp oil heater is fired with oil, gas or a combination of these products. The heater is of the closed type and is of horizontal fire-tube design. This factory fire tested unit is a complete package with removable heater element, integral forced draft fan and burner and all necessary operating and safety controls. The heater element has a large vent at the top of the shell. The heater is used with an expansion tank and external circulating set. The burners operate with full modulation through potentiometer type positioning controls. The burner always returns to low fire position for ignition. A modulating thermostat senses the oil temperature in the heater and controls the burner firing rate. A separate thermostat controls the operation of the internal propeller. (Request Item No. I-7)

Draper Rings

The Mirror-Gold ring (Draper Corp.)

Draper Corp. reports that mill installations of the new Mirror-Gold rings show that this new ring improves breaking-in schedules while retaining all of the advantages of the Draper Mirror Finish ring. This new ring, which is identified by its golden color, is said to increase traveler life and reduce ends down. Mirror-Gold

another

AVISCO® FIBER SERVICE

BEAMED YARN of rayon or acetate, with beam racks to ease its handling and storage even more, has important advantages for all but the smallest mill.

You save beaming operation costs.

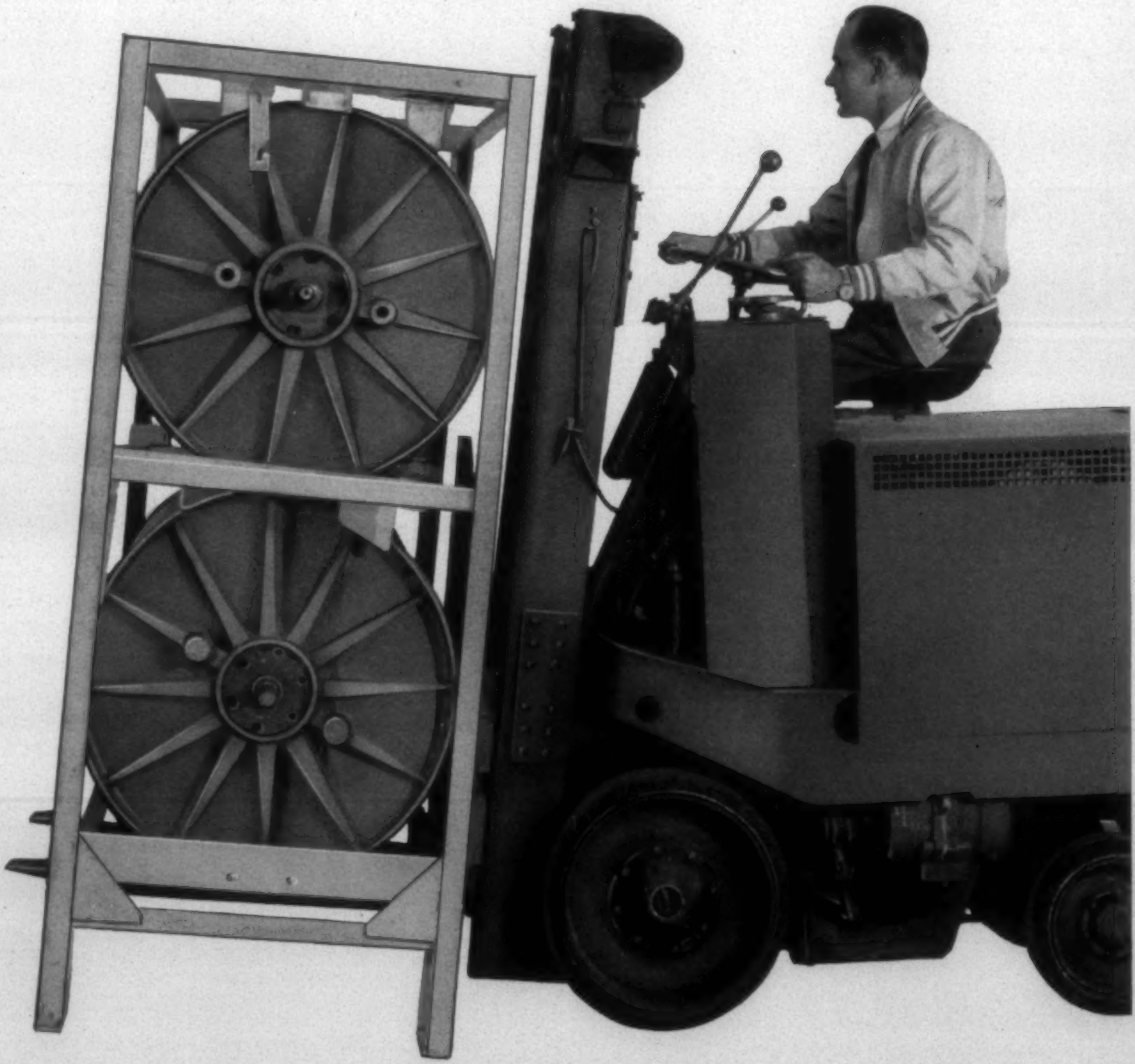
Large quantities of yarn moved easily with a fork truck; storage is simplified.

Dye levelness is improved in finished fabric.

Major yarn damage hazards are eliminated.

Avisco beamed yarn is practically knotless.

We will gladly send, upon request, a new illustrated booklet about the benefits and specifications of beams and beam racks . . . one of many services inaugurated for American Viscose customers.



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rings are currently available for most spinning conditions. (Request Item No. I-8)

Counters

The Trumeter Co. has announced the availability of 6 new measuring instruments. A rope measuring machine is used for ropes and cables up to 3" in diameter. The unit is made of heavy-section welded steel framing with a measuring roller of one yard circumference and an adjustable pressure roller. Both rollers are supported by ball bearings. The unit is equipped with an automatic brake to prevent over-spin.

A machine may be stopped automatically, at any specified time, by use of a new timer unit. The timer unit consists of a predetermined counter coupled with a special type of synchronous motor which is completely enclosed in a dustproof cover. It can be supplied to record in hours, hours and tenths of hours or in minutes, etc., up to a maximum of 99,999 hours. This unit has valuable applications in time study controls.

A calender measuring unit, developed originally for the jute industry, is also available. A series of movable contacts is placed over the top bowl of the calender. Each contact controls a separate width of cloth. The top bowl, which serves as a measuring roller, is coupled mechanically to the unit and as the cloth passes over it, each contact engages with its corresponding counter. The correct yardage is determined since the counter stops automatically as soon as the cloth leaves the top bowl. A thread measuring device, warp measuring and marking device and a conveyor counter have also been made available by the company.

(Request Item No. I-9)

Platform Attachment

The Yale Materials Handling Division, The Yale & Towne Mfg. Co., has developed a workman's platform and boom attachment for industrial lift trucks for the accomplishment of overhead maintenance tasks involving bulky or heavy pieces of plant equipment. The platform comprises 24 sq. ft. of working area and can be fitted with a removable guard rail for safety. The attachment's removable boom, fitted with a hook which accommodates a hand hoist or ratchet hoist, has a capacity of 300 lbs. and slews through 180°. The boom outreach is 48". This attachment is designed to fit directly onto a standard fork carriage. It can be modified to be picked up on a pair of 48 or 60" forks so that the truck can serve double duty as a production tool and piece of maintenance equipment.

(Request Item No. I-10)

Pressure Sensitive Tape

An improved version of a pressure sensitive tape designed especially for use in textile mills has been announced by Minnesota Mining and Mfg. Co. Identified as Scotch brand textile tape No. 254, it has undergone technical improvements to provide a long aging adhesive which retains its holding power over extended periods to meet modern day mill requirements. A strong flatback paper tape, it has improved resistance to adhesive transfer and increased strain resistance, according to the company.

The tape was designed originally for such general textile applications as tabbing the last lap of fabric rolls and holding warp threads in parallel position while the beam is transferred to the weaving loom. It also is used to secure paper wrappings around bolts or rolls of cloth and for holding and bundling applications. The improved tape has a tensile strength of 50 lbs. per in. of width and an adhesion of 55 oz. per in. of width. It is available in widths from ¼" up and in 72-yd. roll lengths.

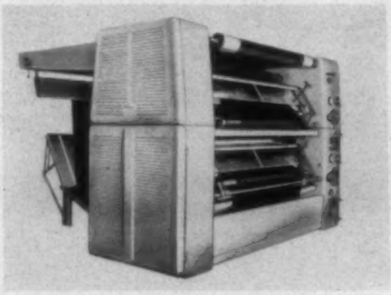
(Request Item No. I-11)

Acrilan 16

The Chemstrand Corp. has announced the introduction of a white Acrilan acrylic fiber to be known as Acrilan 16. In making the announcement, Chemstrand stressed that the white fiber was not made to replace Chemstrand's regular Acrilan staple. The new fiber is the result of three years of development in Chemstrand's research laboratories at Decatur, Ala. It will be made commercially available Oct. 1 at the same prices as Chemstrand's regular Acrilan staple.

(Request Item No. I-12)

Shearing Machine



Newly-designed double head shearing machine (Cosa Corp.)

Cosa Corp. has made available a new, double head shearing machine that brings greater speed, accuracy and ease of control to all shearing operations. In this newly-designed machine, made by Vollenweider Ltd., of Switzerland, the shear cylinders remain stationary—rigidly connected to the machine frame. Adjustments for height of shearing and passage of seams are made by raising and lowering the shearing beds. As a result, the high speed cylinders rotate with complete absence of distortion, vibration or free-motion. Shearing height can be adjusted to an accuracy of .004". Shearing extremely close to the seams is made possible by automatic feed slow-down as seams approach the shear. After the seam passes, the machine returns to normal speed.

A second important design feature is the vertical flow of the cloth through the

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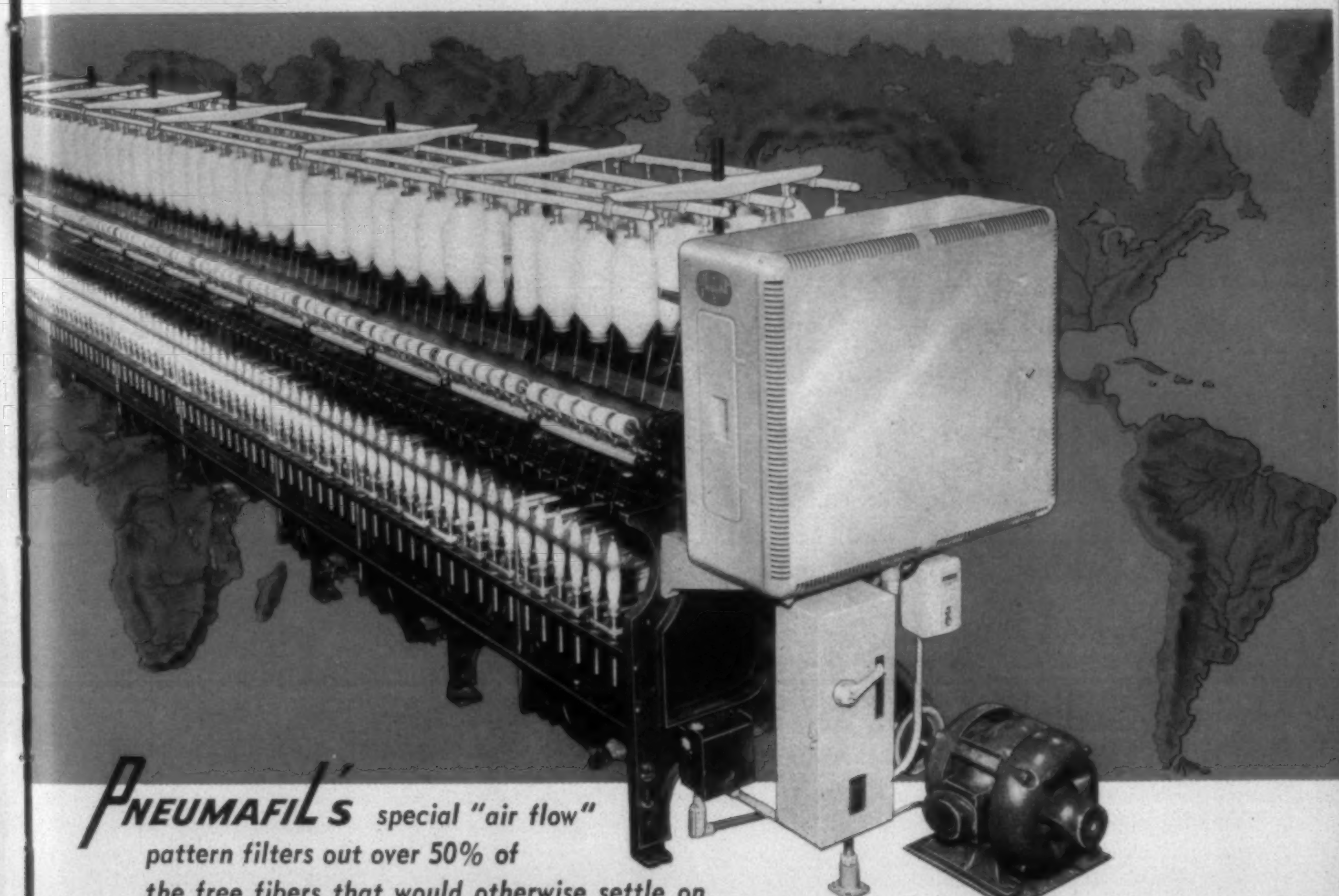

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MORE YARN—Higher than ever front roll speeds are possible with Pneumafil equipped frames, because end breakage is drastically reduced. Frame efficiency is substantially increased to give you more yarn production than ever before.

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LOWER SPINNING COSTS—Larger spinning assignments are made possible with Pneumafil equipped frames because spinner hands have less ends to piece up, and hand cleaning is tremendously decreased.

When you buy Pneumafil products, you can be sure of getting top value for your money!

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Atlanta, Ga. *Needham Heights, Mass.*

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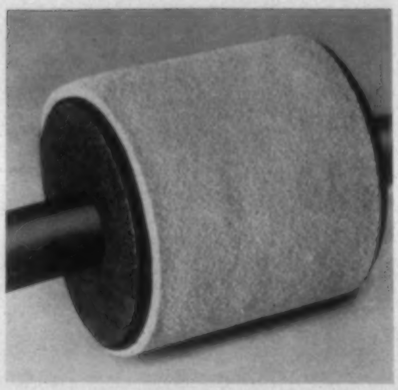
two shears positioned one above the other. This set-up allows the operator, without moving, to (1) check and adjust shearing beds and height of shearing; (2) check the degree of cutter sharpness and make necessary corrections; and (3) check the over-all quality of shearing and make corrections. This effectively prevents any occurrence of holes, stripes, unevenness, stairs, etc. Stepless adjustments permit cloth speeds from 16.5 to 195 ft./min. and shearing cylinder speeds from 500 to 1,500 r.p.m. On its last passage the cloth can be sheared at finish cut, which is at a lower cloth speed and lower cylinder r.p.m. Standard machines will accept maximum widths up to 63" or 78". (Request Item No. I-13)

Top Clearer

A new kind of revolving top clearer cover that makes it possible to substantially lengthen picking schedules with a resultant saving in labor has been developed by the industrial division of the Armstrong Cork Co. The new cover material is called Accotex NK-770 — an expanded synthetic rubber material. NK-770 collects waste more efficiently so that cots and roll stands are kept cleaner. The waste material is collected uniformly, thus preventing uneven bunching that tends to cause end breakage and top roll laps. As a result of these features, the covers do not have to be cleaned so often. When it becomes necessary to service them, they are easily hand cleaned because the waste usually comes off in one piece.



Accotex NK-770 synthetic rubber top clearer cover (Armstrong Cork Co.)

The new clearer covers do not have to be replaced often because the material is very durable and retains its resiliency. The covers are seamless so that there is less tendency to become loose. Excellent results have been reported in 250 test applications in textile mills throughout the country during the past year. In addition to the new revolving top clearer cover, the company also offers materials for flat clearer covers. (Request Item No. I-14)

Sandoz Dyestuffs

Sulfonine Navy RWL Pat., said to be the best dischargeable blue for medium and navy shades on wool or silk, has been added to its line of Sulfonine dyes by Sandoz Inc. Wool and silk dyeings of Sulfonine Navy RWL Pat. possess very good fastness to light, washing, perspiration and water. On silk, its fastness is termed the best to be had from any bright navy with good dischargeability. Wool dyeings are notable for their excellent fastness to cross-dyeing and acid milling. The shade of Sulfonine Navy RWL Pat. dyeings is reportedly unaffected on prolonged boiling treatments.

Artisil Direct Yellow SCW, a disperse yellow which is exceptionally fast to light and washing, is another color which has been added to the Sandoz line of acetate yellows. Its fastness and favorable dyeing properties on Dacron are said to make it the preferred yellow for Dacron/wool blends. On acetate, Arnel or Dacron it affords a degree of light fastness and washability considered unique among disperse yellows. Because of its fastness to perspiration and salt water, it is also favored for the dyeing of bathing suit materials. (Request Item No. I-15)

Regulator-Filter-Lubricator

A complete package unit for compressed air operations which accurately regulates to desired pressure, filters water and dirt from the air line and lubricates the air stream

NON-FLUID OIL
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THE IMPROVED CENTRALIZED TWISTER RING LUBRICANT

White NON-FLUID OIL in grades for centralized lubrication systems is 100% lubricant, so that no residue is left to clog lines and fittings. Even when subjected to the highest pressures per square inch, white NON-FLUID OIL will not disintegrate or separate, but lubricates constantly and dependably, insuring longest life for rings and travelers.

The clean, positive lubrication provided by white NON-FLUID OIL prevents broken ends or blackened yarn —so assures top production of perfect twist at lowest cost. That's why it is preferred by most leading yarn and thread mills.

White NON-FLUID OIL is made in grades exactly suited to every type of ring and method of application. Send today for Bulletin T-16 and free sample, and give it a fair trial.

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NON-FLUID OIL is not the name of a general class of lubricants, but is a specific product of our manufacture. So-called grease imitations of NON-FLUID OIL often prove dangerous and costly to use.

Knocks the stuffing out of size costs in a Gaulin Homogenizer

Away with the old, and in with the new. Converting size particles by cooking is rapidly becoming the old fashioned expensive way. Hundreds of America's leading mills have found the mechanical conversion of a Gaulin Homogenizer costs less and does a better, more uniform job.

A Gaulin shears, expands and explodes size particles under tremendous speed and pressure. Makes them uniformly finer, faster.

The result? Mills using this process claim greater uniformity of added size on Gaulin Homogenized warp. Report improved size penetration of their yarn, and say the quality of the warp yarn is greatly improved.

Mills that have tried it now have their entire production on Gaulin Homogenized Size. Experience proves that a Gaulin usually pays for itself in less than 12 months.

Give a Gaulin Homogenizer a test in your mill. We'll be glad to install one for you on a guaranteed-performance basis. Whether you're making cottons, worsteds, or synthetics, write asking for one of our sales engineers to call.

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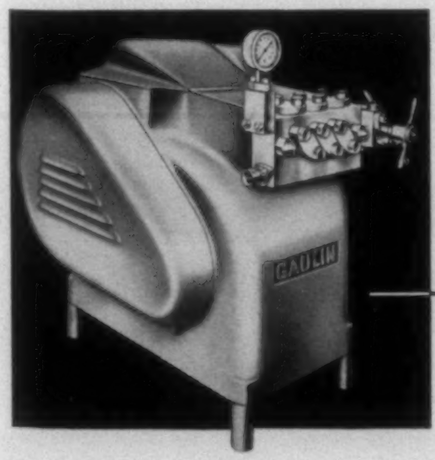

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IRREGULAR PAGINATION

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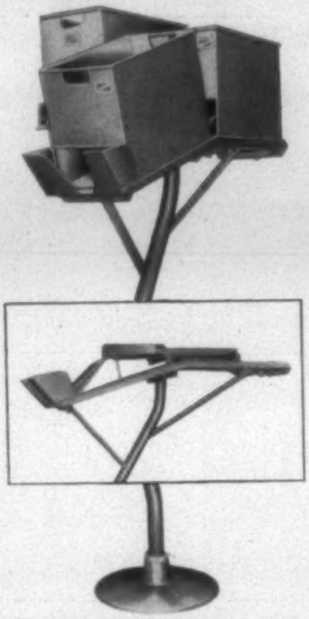
MATERIALS HANDLING EQUIPMENT WILL CUT YOUR WEAVE ROOM COSTS

FILLING BOX RACKS

(patent applied for)

Sturdily built and efficient—holds two full boxes of filling. Each box holds approximately a half a frame of filling, 130 bobbins, with each bobbin laying crossways with the butts all on the same side. The RACKS are placed beside the looms so that the dispensing spout will be just over the battery filling. The dispensing spout is lined with stainless steel as is the filling box. A battery filler can fill up to twice as many batteries than from a tub or basket. There is a side ledge to hold an empty box after the front box is emptied so that the rear full box can be pulled down into position for the dispensing spout.



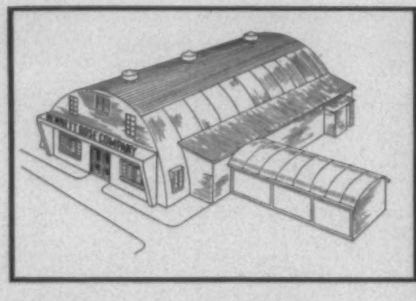
FILLING BOXES: Used for doffing the filling in the Spinning Room from where they are transported to the Weave Room and mounted on Racks (see above) installed at the looms. Boxes may be made of galvanized metal with a stainless steel bottom, or of all stainless steel with perforations for the steaming process also. They can be furnished in various sizes.

(Available with or without dispensing feed-lip.)

FILLING BOX TRANSPORT

This Filling Box Transport is of all steel construction — is used to handle the Filling Boxes from the Spinning Room to the Weave Room — with four shelves holding 20 boxes. May be equipped with any casters. (By using this BENNETT ROSE Battery Filling System a mill can save from 30 to 50% on its battery filling costs and pay for this equipment in from 12 to 20 months.)

Send for further information.
Write for our latest catalogue.



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ROSE
COMPANY
P. O. BOX 8
ROEBUCK, S. C.

with a fine, fog-like, oil mist is available from the Perfecting Service Co. The 3-in-1 combination regulator-filter-lubricator, that performs 3 important functions simultaneously, is delivered ready to install and requires only 2 connections.

The regulator operates on a balanced piston principle. Large seats and seals maintain accurate adjustment. An automatic bleed-off permits sensitive pressure reduction without bleeding the down-stream line. The unit permits accurate regulation to zero lbs. where it serves as a shut-off valve. A pressure gauge with a range of 0-to-200 lbs. is included with the unit. The cyclonic action within the filter bowl removes dirt and water. A second filtering takes place as the air passes through the filter cartridge. Inexpensive throw-away type cartridges are easily replaced without the use of tools or removing the filter from the line.

An external oil adjustment meters the lubricant, which automatically enters the air stream as an oil mist. A special filler button valve permits refilling the oil reservoir without stopping the operation or shutting off the air supply. The unit is available in $\frac{1}{4}$", $\frac{3}{8}$", $\frac{1}{2}$" and $\frac{3}{4}$" pipe sizes.

(Request Item No. I-16)

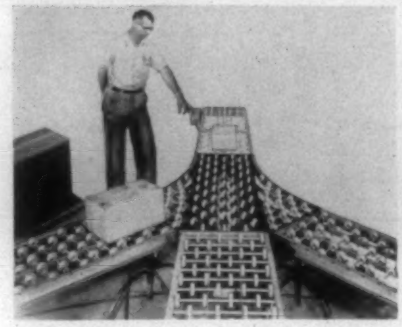
Aluminum Safety-Step Ladders

Non-corrosive aluminum ladder (Ballymore Co.)

An important advance in the construction of its line of lightweight, non-corrosive aluminum ladders has been announced by the Ballymore Co. Ladders with steps made completely of extruded aluminum are now available to increase the safety factor and prolong the ladder's life. The solid, ribbed aluminum steps give the user added security and confidence. The other famous characteristics of Ballymore ladders have all been retained, the company points out. Smooth-rolling, ball-bearing casters permit the ladder to be moved about easily. Casters automatically retract when ladder is stepped on and rubber-tipped legs insure safe, four-cornered support. Constructed of tough, all-welded aluminum tubing, there are no bolts or rivets, no parts to loosen. Sturdy handrails for added safety are offered on the 3 and 4-step models. The ladders are available in 4 sizes, 7 models.

(Request Item No. I-17)

3-Way Conveyor Switch



A new 3-way switch for automatic sorting of packages (E. W. Buschman Co.)

A new 3-way switch for automatic sorting of packages according to size, weight or classification has been introduced by the E. W. Buschman Co. Designed for compactness and simplicity of operation, it provides means of dispatching packages into side aisles, at the right and to the left or straight through, without the use of deflectors. The switch may be controlled by remote push buttons, limit switches, photoelectric cells and other electrical means. A series of classifications can be made through these switches to bring like packages into the proper storage line. Automatic diversion to a bypass line can be made in case the main conveyor line is blocked. The complete loading of one storage line can automatically switch to load a second and third line. Separation for routing to different areas also can be accomplished.

Standardized conveyor widths are 12", 15", 18" and 24". Turns are either 45° or 90°. Accurately made, each wheel is securely locked in place and turns in varying degrees to pre-determined angle required to safely guide the packages around the curve. The Buschman 3-way switch is also made for manual control. A single hand lever switches package travel to any of three directions.

(Request Item No. I-18)

New Process For Producing Bulked Yarn Announced

Deering Milliken Research Corp. has reported the development of a process for producing a modified stretch or bulked yarn by post-treatment through heat of crimped yarns. The process constitutes a partial development of the crimped yarn to produce desirable bulked properties which make the yarn suitable for use in the manufacture of sweaters, jerseys and woven dress fabrics. The process is said to be applicable to the modification of Agilon, Helanca, Ban-Lon, Fluflon and Superloft yarns and stretch or bulked yarns produced by other processes.

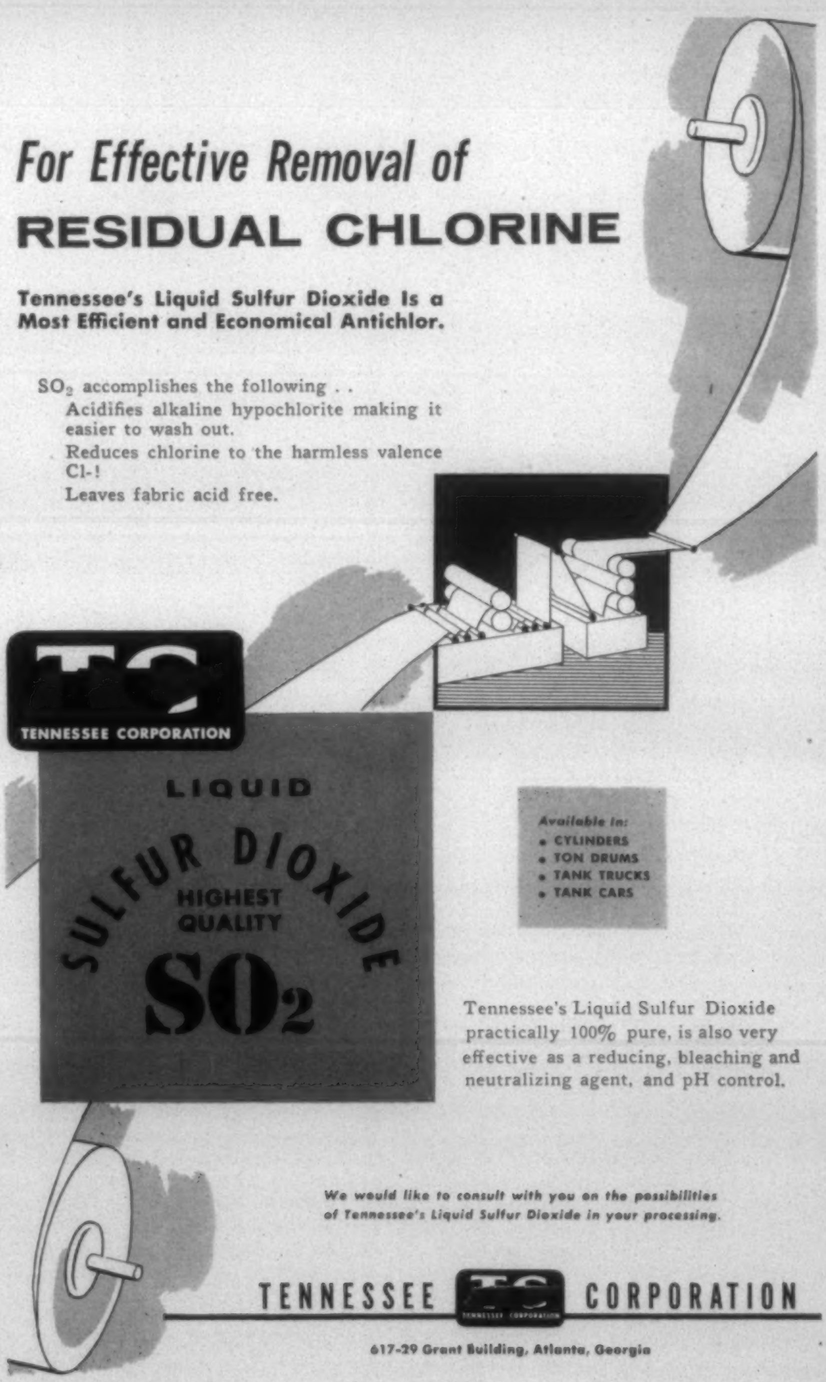
Applications for patents on both the process and the apparatus employed are pending. Equipment used for this process is adaptable for installation on ring twisters of the type of the Atwood Model 10 or any winder having appropriate take-up means, the company points out. The equipment comprises overfeed rolls and means for heating the yarn under controlled conditions of feed and delivery. The separate patent applications covering the subject matter of the new process and apparatus already contain claims allowed by the U. S. Patent Office.

Licensees of the corporation's process for producing elasticized yarn by edge-crimping automatically have a license to employ this post-treatment on yarns produced by this process at no increase in royalty. Others may use the process under a royalty-bearing license.

(Request Item No. I-19)

Softener

Synthravon P, a non-substantive softener developed for incorporation into thermosetting resin finishing baths, has been added to the Arnold, Hoffman & Co. Inc. range of chemical specialties for the textile industry. The company states that this easy to use softener can also be used to advantage as a pure finish on cotton and synthetic fabrics. Characteristics imparted to



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Tennessee's Liquid Sulfur Dioxide practically 100% pure, is also very effective as a reducing, bleaching and neutralizing agent, and pH control.

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fabrics include high tear strengths, excellent resistance to scorching and yellowing and good resistance to washing and dry cleaning. The new softener does not contribute to chlorine retention damage. It improves both sewability and crease resistance.

The new product is described as a polyethylene textile softener in the form of a white pourable liquid which is miscible with water in all proportions. Synthravon P is non-ionic in reaction which makes it compatible with a wide range of resins and catalysts. It will not develop rancidity in storage or on the fiber. Although the amount of the new softener required for any given application will depend on the desired effect, for most uses, 2% Synthravon P based on the weight of the fabric is adequate. Pad bath concentration should be adjusted in conjunction with the degree of wet pickup in order to deposit the required amount on the fabric. The softener should be applied at temperatures below 120° F. (Request Item No. I-20)

For the Mill Bookshelf

Daylighting

"Color Sells—Yes" is the title of an easy to understand, 4-page bulletin published by the Macbeth Daylighting Corp. The bulletin discusses in detail the successful uses to which Macbeth Daylighting has been put in the critical viewing or matching of colors to standards.
(Request Item No. I-21)

Power Sweeper

Dust-free mechanized sweeping is described in a 4-page illustrated bulletin on the new unit of the G. H. Tennant Co.—the Model 80 power sweeper. This machine is the largest in the company's line of industrial sweepers. It has a 42" main brush and a sidebrush which increases sweeping path to 53". The bulletin illustrates selected features such as dust control system, instant reverse, hydraulic dumping, etc.
(Request Item No. I-22)

Flexible Link Shaft

The Clark Flexible Link Shaft Co. has published a bulletin, "A New Long Arm For Industry," which tells the story of its new flexible shaft with equal torque in both directions, unlimited length and equal flexibility in all sizes from ⅜" to 3" diameter. The device is suitable for remote controls and power drives. The links consist of trunnion blocks and 2 half-links fastened together with screws or rivets. Cover materials are available in a variety of products including armored neoprene hose, non-metallic hose or semi-rigid tube. End fittings are available to meet given requirements. Minimum link length is 3 times the diameter and various link lengths can be combined in one shaft using long links for straight runs. (Request Item No. I-23)

Web Conditioner

The J. O. Ross Engineering Corp. offers an 8-page, 2-color bulletin covering its new Web Conditioner for controlling the addition of moisture to textiles. The controlled addition of moisture to many fabrics simplifies processing and results in an improved finished product. As explained and illustrated in the bulletin, the material travels continuously through the conditioner between opposing banks of steam nozzles. Steam pressure is regulated to control the addition of moisture as desired. A steam zone at the entrance of the unit preconditions the web before reaching the nozzles and an exhaust system discharges spent steam to the atmosphere. The new bulletin also illustrates and describes typical conditioner applications and lists 14 conditioner advantages, 9 examples of moisture gains by different web materials, and 28 users of the new unit. (Request Item No. I-24)

Pneumatic Conveying

Bulletin No. 143-B, issued by Spencer Turbine Co., describes both stationary and portable pneumatic conveying systems. Systems cover a capacity range from ¾ through 10 tons per hour; vacuum producers from 5 through 75 h.p., and hose or pipe sizes from 2" through 7". Conveying under both pressure and vacuum is covered, and several typical applications are illustrated. Specific information is provided on size of unit, rate of conveying, type and weight of material in each case.
(Request Item No. I-25)

Circuit Breakers

A new 4-page bulletin (GEA-6750) describing the industrial line of molded case circuit breakers in ratings of 15 to 800 amperes has just been released by the circuit protective devices department of the General Electric Co. The new publication gives enclosure information, ratings, modifications and accessories of the G-E line from fungus-proofing to non-automatic trip.
(Request Item No. I-26)

Motor Starters

A 20-page publication—GEA-6611—contains comprehensive data on the General Electric Co.'s radically new N.E.M.A. Size 0 and 1 magnetic motor starters for such applications as machine tools, pumps, hoists, blowers, saws, fans, mixers, compressors and motor control center. The illustrated bulletin shows how the product's design contributes to fast installation, simplified wiring, easy inspection and maintenance, long life, quiet and dependable operation, and maximum flexibility. The color publication describes all available forms and enclosures. It points out features of 9 different field modification kits. Ordering information for contactor and across-the-line reversing, non-reversing, combination and multispeed starter forms as well as on modification kits is included. Dimensions are given on open and enclosed forms.
(Request Item No. I-27)

Mill Painting Guide

Detailed painting specifications for textile plants are included in a new 12-page brochure recently published by the Sherwin-Williams Co. The new publication covers all phases of maintenance painting in textile plants, spelling out in easy-to-read chart form practical and economical paint specifications for all processing areas. The recommendations are based on detailed analysis of humidity and other atmospheric conditions and of lighting requirements in the industry. Specifications cover all types of surfaces in each work area and separate specifications for both new and previously painted surfaces are presented.
(Request Item No. I-28)

Guide To Factoring

The old-line factoring firm of William Iselin & Co. Inc. has published a booklet called "Guide to Factoring," which explains factoring and its benefits in practical, easy-to-understand terms. The booklet points out that Iselin, as an old-line factor, buys accounts receivable outright, checks and guarantees credits, and makes collections for its clients. The money accumulated in these accounts receivable represents a constant flow of operating capital. In addition, the company often makes specialized loans to clients when more money is needed.
(Request Item No. I-29)

Valve Catalog

A new valve catalog, No. 57, covering the complete line of bronze and iron body valves, has been published by The Fairbanks Co. The profusely illustrated, 136-page, hard cover catalog includes such recent additions to the Fairbanks' line as the patented renewable seat ring bronze gate valves, composition disc bronze swing check valves and solder end globe valves with drain. An important modification of the 125-lb. iron body gate valves—through-port design to reduce the turbulence and pressure drop in the flow through the valves—is illustrated in the sectional views of these valves. Helpful technical data for the initial design of piping layouts are included in the useful information section of the new catlalog. These data include a table of equivalent resistance of valves, fittings and bends; and charts for the rational solution of pressure drop for liquids, gases and steam. The use of these data permits rapid appraisal of the pipe sizes required for the particular flow requirements.

(Request Item No. I-30)

Woolen Card

A Davis & Furber review on the new Model L, 48" woolen card is offered to anyone interested in better carding. Mills, producing all types of work from fine women's wear to carpets and papermaker's felt, have furnished authentic comparative production figures of new 84" card compared with smaller existing cards. The review also compares purchase price and carding width. Design features provide infinite adjustments—convenience, permanency, flexibility in adjustments—so essential to good carding. These features and others are illustrated and listed in this review.

(Request Item No. I-31)

Engineering Service

Manufacturers with engineering problems or in need of supplementary engineering or drafting talent during peak periods will find a solution in the new descriptive brochure available from Associated Engineers Inc. The colorful and profusely illustrated brochure stresses the fact that when manufacturers' creative facilities are overloaded or when expert technical aid is needed, there is available a complete engineering and manufacturing service. The automation of manufacturing plants is one of the many specialties of the organization. The brochure explains and illustrates the firm's six basic divisions of mechanical engineering, tool engineering, industrial laboratory, special services division, special products division and the large manufacturing plant. The company's services range from creating small machine parts to the complete designing, building and testing of special machinery.

(Request Item No. I-32)

Optical Bleaches

A booklet which explains the nature and behavior of Tinopals optical bleaches and their application to cellulosic fibers has been published by Geigy Dyestuffs, Division of Geigy Chemical Corp.

The brochure points out in its preface that the widespread use of so-called optical bleaches by the textile and detergent industries has led to the development of fluorescent whitening agents for producing "whiter" whites than have been heretofore possible. Geigy Dyestuffs has been a major factor in this progressive research that has led to improved whitening agents with its widely accepted Tinopals series. Geigy has developed many variations of Tinopals for the different natural and man-made fibers,

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and for different finishing or dyeing operations. The pamphlet gives specific recommendations, based on research and experience with users, for each of the different whitening agents developed for cellulosic fibers.

For those unfamiliar with the properties of optical bleaches, the brochure explains that while they possess no color immediately apparent to the eye, they convert a portion of the invisible ultra violet light present into visible light of a predominantly bluish hue, thereby increasing the whiteness and brightness of fibers, yarns and fabrics. The effect is strikingly superior to that obtained by the use of bluing with pigments or selected dyestuffs. Tinopals add emitted blue light without subtracting from the visible components of the striking or impinging light, thereby not only overcoming the yellowness but also making the shade of white brighter.

(Request Item No. I-33)

Equipment Catalog

Precision Equipment Co. has published a new catalog especially designed to help executives choose the right equipment for plant or office. In addition to standard storage equipment—such as adjustable steel shelving, revolving bins and many styles of cabinets—the catalog lists material handling equipment, shelf trucks, etc. A special library section of the catalog is devoted to offerings of free brochures describing new products. (Request Item No. I-34)

Adjustable Steel Shelving

The Penco line of adjustable steel shelving is presented in Bulletin SE-5, published by the Alan Wood Steel Co. This new 6-page bulletin describes and illustrates the company's 6 basic types of shelving, which are available in an almost indefinite number of variations and sizes. Photographs show construction features, the wide variety of different shelving arrangements possible and a number of typical Penco shelving installations. Specifications covering design and construction details are presented. The bulletin also illustrates two other Penco product lines—Penco steel lockers and Penco steel storage cabinets.

(Request Item No. I-35)

Printing With Vats

Its current views on vat dyestuffs for textile printing have been compactly summarized by Arnold, Hoffman & Co. Inc. in a recent technical circular. Depending on the end-use requirements in any given market, the company notes, a vat dyestuff may be required in a variety of different standardizations. A most common requirement is the necessity for dyestuff pastes or powders of varying strengths to meet such considerations as climate, transportation, storage, etc., the circular states. Similarly, certain users prefer pastes, while it is also recognized that powder qualities have established merit. Modern textile processing conditions place great emphasis on the need to standardize vat dyestuffs in a variety of qualities with each particularly suited for a specific end-use, the circular says.

(Request Item No. I-36)

Materials Handling Equipment

(By D. Oliphant Hayes; 636 pgs.; 2,200 illustrations; Chilton Publications, 56th & Chestnut Sts., Philadelphia 39, Pa.; $17.50)

This book analyses the importance of materials handling equipment; reviews basic types of equipment; describes integration of production machinery with handling equipment; and reports on the cost analysis, organization and control of handling systems.

The Story of Wool

"The Story of Wool," a new 24-page booklet, has been published by the Wool Bureau Inc. The booklet covers the history of wool growing, the making of the fabric, and its use and care. Individual copies are available at 10 cents each by writing to the Wool Bureau, 16 West 46th St., New York 36, N. Y. It is also available in quantity at 20 for $1.00.

Serving The Textile Industry

Draper Loom Volume Off Some But Total Sales Improved

In its mid-year letter to stockholders, the Draper Corp., Hopedale, Mass., has reported that the sales of new looms and loom equipment for the first six months of 1957 reached a volume only slightly below that of last year in the face of extremely unsatisfactory conditions in the textile industry. Over-all dollar sales, including those of the company's wholly-owned subsidiaries, were somewhat higher than in the corresponding period last year. The profits for the period, from Draper operations alone, were substantially lower than those for the first six months of 1956. This is reported to be largely due to rising costs which have not been offset by higher prices. Nevertheless, these profits did cover regular dividend requirements.

Earnings on a consolidated basis were further affected adversely by costs incident to the diversification program being carried out by the company. The recently merged Wildman Jacquard Co. was called upon this Spring to absorb the Hemphill Co. operations into its Norristown, Pa., plant and did not get into full production until September.

The immediate outlook for the textile industry, according to the Draper report, is unpredictable due largely to the continued liquidation of marginal textile mills and unsatisfactory earnings of practically the entire industry. As a result of these conditions, orders for new machinery are unusually slow. Orders booked for the balance of the year are considerably under that of a year ago.

B. S. Roy & Co. Completes Expansion Program In South

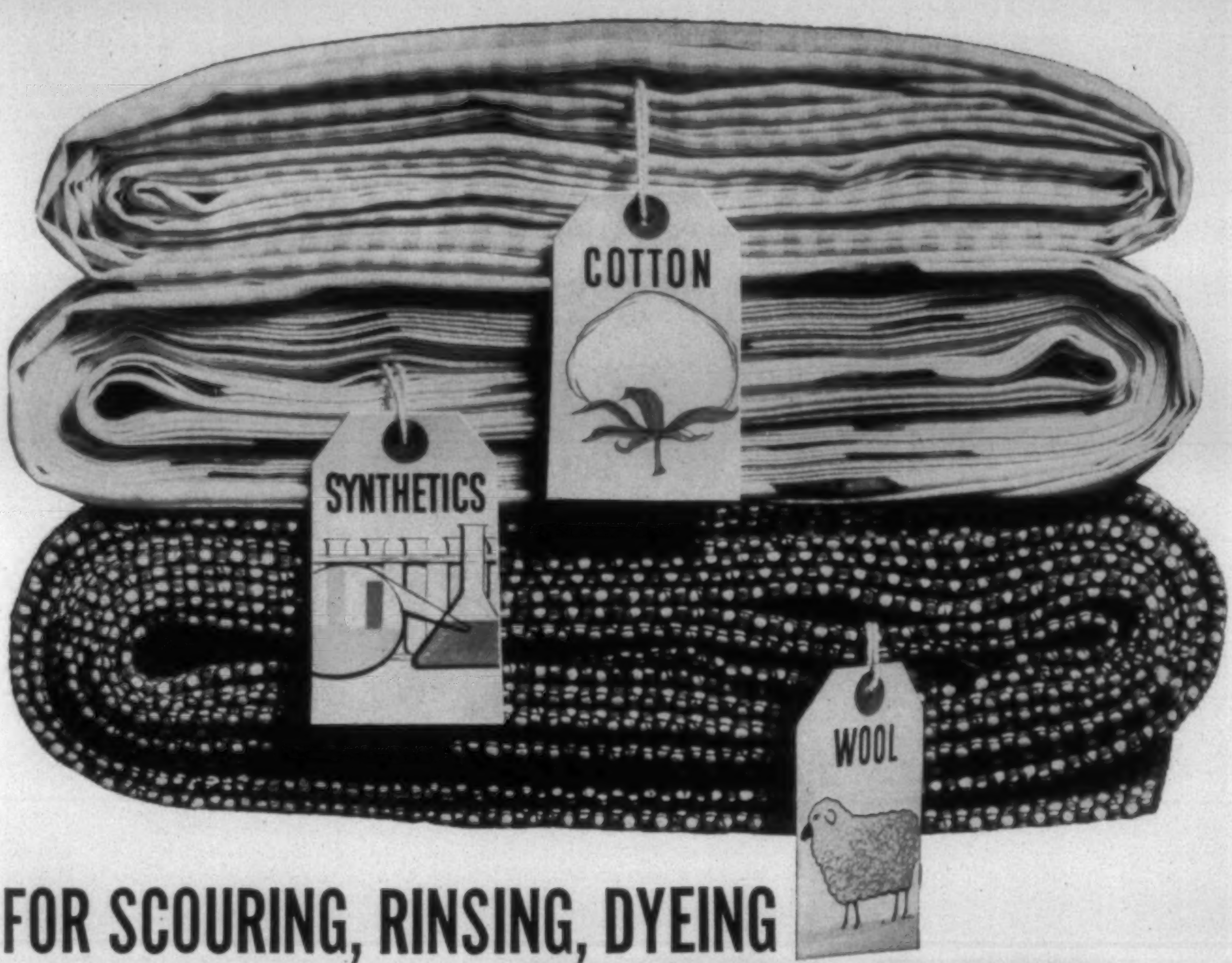
B. S. Roy & Son Co., Worcester, Mass., manufacturer of precision textile grinding equipment, has announced completion of its Gastonia, N. C., plant. New machinery and personnel have been added to the Gastonia operation so that all major grinding requirements for the Southern textile industry can be handled from this Southern location. Included in the company's new service will be the manufacture of new equipment, maintenance of a complete inventory of new machines and repair parts and rebuilding facilities. A complete research and development program is carried on for better products and services to the industry.

The new plant will result in improved deliveries to Southern mills and lower freight costs. The company's consulting engineers will be readily available for mill problems in the Southern area. Production of heavy equipment such as napper grinders, floor frames, calender roll grinders, rubber roll grinding equipment and grinders for the woolen industry will be continued at the company's Worcester plant.

Colson Corp. To Open New Caster Plant In Ark.

The Colson Corp., Elyria, Ohio, manufacturer of wheeled products for industrial materials handling equipment, has announced construction of a new plant for caster production in Jonesboro, Ark. The bulk of the company's caster operations will be concentrated in the new 89,000-sq.-ft. plant. Headquarters in Elyria will be maintained. The new single-story, concrete and steel plant will be one of the largest and most modern plants in the world devoted exclusively to caster production. The company manufactures some 12,000 different casters.

The manufacturing area will comprise approximately 80,000 sq. ft. and administrative offices and other employee facilities will occupy the remaining 9,000 sq. ft. of floor area. The building is being constructed on a 20-acre site and will permit future expansion to 270,000 sq. ft. of floor area. It will be made of tilt-up, reinforced concrete construction. The crane bay at the raw materials receiving end will measure 40x200



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ft. and will be 26 ft. high. The shipping end will have a 12x60 ft. truck dock and space for a rail spur at one side.

Schmidt Mfg. Co. Announces Completion Of New Facility

The Schmidt Mfg. Co., New Bedford, Mass., has announced the completion of a new metal fabrication department. The new department is now in full operation. Its addition expands the scope of products being offered by the company to the textile industry.

Goodrich To Triple Darlan Production Facilities

An expansion which will triple the existing semi-works facilities for the production of Darlan dinitrile fiber at the Avon Lake, Ohio, development center of B. F. Goodrich Chemical Co. has been announced by the company. Primary purpose of the expansion is to provide additional quantities of the new textile fiber for an accelerated market evaluation program and to obtain additional design data for possible production units. Work on the expansion is under way and completion is slated for early 1958.

The expansion is tied in closely with the installation of a fiber application laboratory in the newly-leased Chester Ave. annex of the company's general offices in Cleveland, Ohio. Removal of some equipment to the annex will clear certain areas at the development center for the installation of new equipment for the development of Darlan dyeing technology. The first public announcement of the development of Darlan was made in late 1955 and since that time Darlan has reached commercial realization in women's deep-pile coats, wide-wale classic sweaters and hand knitting yarns.

Standard Chemical Awards Contracts For New Building

The Standard Chemical Products Inc. has awarded a contract to the J. A. Jones Construction Co., Charlotte, N. C., for the construction of additional laboratory facilities at its Charlotte plant. The company reports that the new addition will cost approximately $100,000.

New Wool Shrinkage Program Being Set Up

Stevensons (U.S.A.) Ltd. has been incorporated as an affiliate of Stevenson (Dyers) Ltd. of Ambergate, England, to assume direct licensing of the Stevensons methods of stabilizing wool for washability and matting and shrinking. The methods were previously sublicensed by Cluett, Peabody & Co. under its Sanforlan program which has been discontinued.

Stevensons is introducing a new trademark—Dylan—to certify wool goods which are continuously tested and quality controlled to specifications for washability. These specifications are generally similar to those

DILLARD PAPER CO. HAS MOVED into its new headquarters building at 2751 Patterson Avenue in Greensboro, N. C. The new building, located on a large plot, has been called America's most modern paper distributing warehouse. It contains 80,000 square feet of floor space, with some 60,000 feet devoted to warehouse and converting area and the balance used for offices. Executive offices are located on the second floor of the office area, and officials and the bookkeeping department of the parent company are located in this section. The Greensboro operations of the company are on the first floor of the office area. The firm, which operates separate corporations in 16 Southern cities, was established in Greensboro in 1926. The first branch office was established at Greenville, S. C., in 1934, with other offices following at Charlotte in 1937, Roanoke, Va., in 1940 and Bristol, Tenn., in 1944. Other offices are now operating in Raleigh, Wilmington and Winston-Salem in North Carolina; Columbia and Spartanburg in South Carolina; Knoxville and Nashville in Tennessee; Atlanta, Augusta and Macon in Georgia; and Birmingham, Ala. Stark S. Dillard, founder of the company, continues as chairman of the board.

which prevailed on Sanforlan, and users of the Sanforlan mark for the most part will be eligible for the Dylan mark, it is pointed out.

M. Stanley Brown, who has represented Stevensons' interests in this country, will be general manager of the new enterprise. Frank A. Murphy, who has been in charge of technical services at Cluett, Peabody & Co. for Stevensons' process installations and technical consultation with licensees, will head a similar division for Stevensons. Stevensons plans to open a laboratory under Mr. Murphy's direction for the continuous testing of articles for licensees under the Dylan mark as well as research and testing work for licensees of the Stevensons' processes. The firm's research department in this country will have access to the research and development department of the parent company in England.

Friday Textile Machine Sets Production Lines

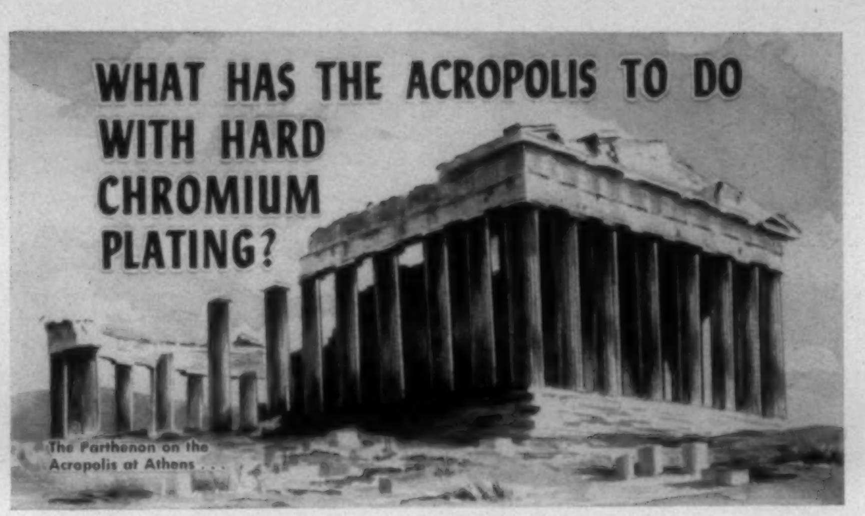
The Friday Textile Machine & Supply Co., Gastonia, N. C., has gone into production in its new plant. The company's products are castings, gears, sprockets, rollers, etc. The new plant contains some 3,800 sq. ft. of floor space and is designed for expansion. D. L. Friday is president of the new firm. His son, John Friday, is vice-president and Miss Katherine Payne is secretary-treasurer.

Cocker Machine & Foundry Co. Moves Into New Facilities

Cocker Machine & Foundry Co. has completed its move into new $250,000 facilities in Ranlo, N. C. The company's property in Gastonia, N. C., is for sale. The new building contains 85,000 sq. ft. of manufacturing area. The foundry, sheet metal shop, cleaning room, machine shop, warehouse, erecting room and office are housed in the new facility. There is a separate building provided for metal work, pattern work and the creeling department.

Dobeckmun Co. Merges With Dow Chemical Co.

Stockholders of The Dobeckmun Co., Cleveland, Ohio, manufacturer of flexible packaging, gift wraps and metallic yarns, have approved merging the firm with The Dow Chemical Co. Directors of both firms had previously approved the merger proposal. Under the merger terms, the assets and business of Dobeckmun have been transferred to Dow and Dow has assumed all Dobeckmun liabilities. As of Sept. 1, Dobeckmun will be known as The Dobeckmun Co., a division of The Dow Chemical Co. Dobeckmun, founded in 1927, operates plants in Cleveland, Ohio; Berkeley, Calif.; Bennington and Wells River, Vt.; Amsterdam, Holland; and Windsor, England. Dow produces basic chemicals, plastics, magnesium and agricultural chemicals. It operates plants in nine states and in Canada and has facilities under construction in two other states.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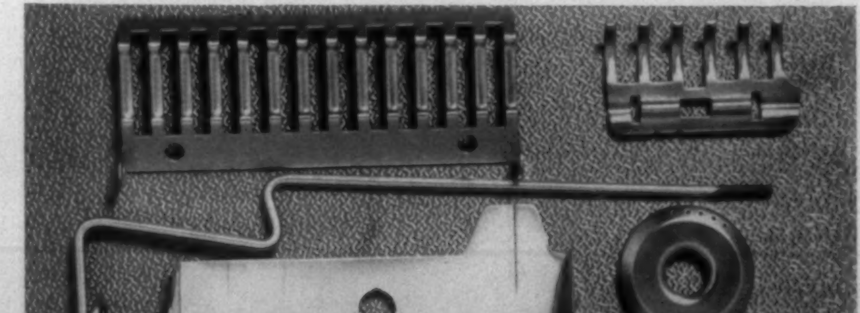

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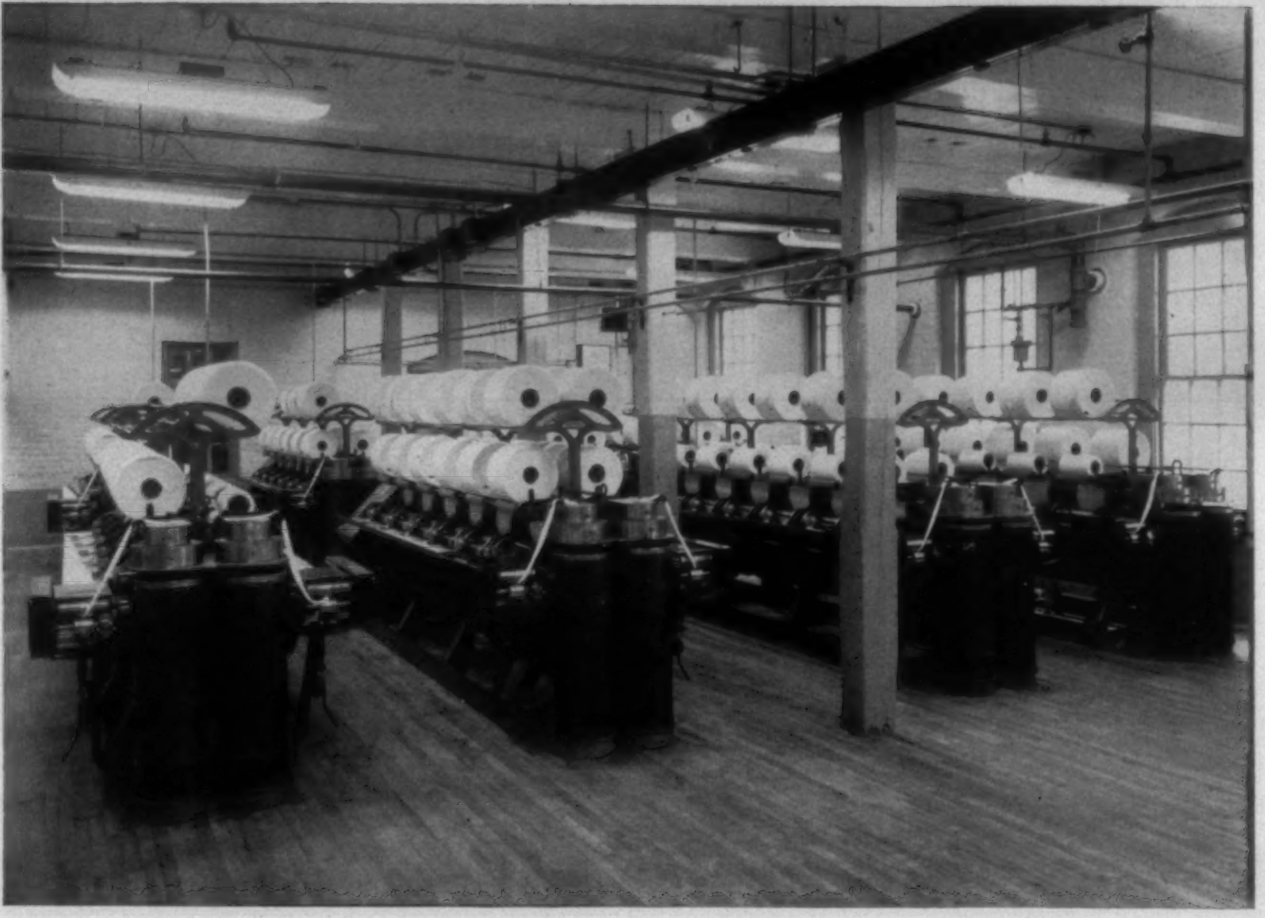

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FOR THE TEXTILE INDUSTRY

textile bulletin

VOL. 83 SEPTEMBER 1957 NO. 9

Carded Yarn Association

KING COTTON
and the Textile Market

By M. K. HORNE JR.
Chief Economist, National Cotton Council

In this paper, presented Sept. 13 before the Carded Yarn Association at Sea Island, Ga., the author, who makes a career of studying the economic problems of cotton, reviews today's textile market and comes up with the conclusion that the market will be what the indusry makes it.

IN the whole cotton industry of this country—from the farmer to the spinner and beyond—we have a great many critical problems today. In farming and in spinning and in various other parts of the industry, profits have been taking a beating. Throughout the whole picture there is one great problem which is common to all, and which seems in a way to be the prime explanation of the whole thing. Our one, big, over-all problem is this: Our markets are not growing. They are too small for our productive capacity, and they are not growing.

In this country, in this day and time, it is impossible for a highly competitive industry to be prosperous for very long if its markets are not growing. Other markets are growing. We are in competition with other industries for labor and machinery and the other resources of production. Our own costs are inevitably rising. How can we survive and do well in this situation unless our markets also have in them the basic strength which comes from steady, long-range expansion?

Over the past decade, this country's population has increased tremendously, and not only that — the amount of goods and services which could be purchased by or for the average person has also increased tremendously. For every five Americans ten years ago, there now are six. For every three dollars of real purchasing power that the American people had ten years ago, they now have more than four.

Per Capita Fiber Consumption Down

Yet in the face of this, the total consumption of textile fibers has not increased very much—and the per capita consumption has actually declined. I am talking about all textile fibers, not just cotton. Last year the per capita consumption was a pound and a half lower than it had been the year before. It was three pounds lower than it had averaged in the first half of this decade. It was four pounds lower than it had averaged in the last half of the last decade. That means it was down nearly ten per cent. The average American is consuming more of nearly everything else, but he is consuming less of textile fibers.

This is something that we all want to analyze just as closely as possible. Let's take as our base for comparison the year 1948. As you know, 1948 is generally accepted as the closest thing to a normal year that we had at any time in the decade of the 1940s. We'll compare it with last year, 1956. Between 1948 and 1956, in eight years, the total American market grew by 32 per cent or about one-third.

Now for comparison, what has been the trend of cotton consumption in our domestic mills between 1948 and 1956? If cotton consumption was 100 in 1948, it was down to just a little below 100 in 1956. It declined from 9.1 million bales to a bare nine million. While the total American market rose 32 per cent, cotton consumption didn't even quite manage to hold its own.

If cotton had risen just the average consumption of everything in this country rose—by 32 per cent—the mills last year would have consumed not nine but 12 million bales—and we would be straining very hard, as we have in times past, to supply the demand. The difference is three million bales of domestic mill consumption which cotton did not get. Where did that three million bale market go? Who got it? The answer is divided up into a lot of things. We'll try to take the answer apart just a little bit, and look at some of its parts.

The Synthetic Fibers

We naturally turn first to ask whether the synthetic fibers got this market. Now even if the answer were yes (and it's *not* yes), I would not observe it in a spirit of criticism or resentment. Synthetics are a part of the American free enterprise system with a very valid place in the scheme of things. The cotton industry, working through the National Cotton Council, has always shunned all proposals to use its considerable political strength in the interest of legislation that would be restrictive in any sense to the synthetic industry. Rather than resent or oppose the synthetic industry, we have concentrated upon studying it and learning how to compete with it. In the past decade or so we have learned some important lessons from the synthetic industry, and we have taught it a few.

We can't go so far as to accept the line that the synthetic fibers are not, first of all, vigorous and deadly competitors of cotton. Of course they are. The cotton industry will be doomed if it loses sight of that fact. On this question I am more inclined to take the view of the distinguished president of the world's largest rayon company, Sir John Hanbury-Williams of Courtaulds Ltd. He was commenting the other day on his company's recent merger with British Celanese, which puts 85 per cent of all the rayon and acetate in the United Kingdom under one control. He said, in effect, that some misguided people might think that this introduces just a touch of monopoly into the situation—but that if so, they are badly deceived, for there is still the competition of cotton and the other natural fibers with which to contend!

Of course we are competitors—but the point is, what's wrong with this kind of competition? The competition of cotton and of synthetic staple has made both of them a great deal more progressive than they otherwise would have been in their efforts to serve the American spinning industry.

Carded Yarn Association

A FEATURE of this month's twelfth annual meeting of the Carded Yarn Association, held Thursday and Friday, Sept. 12-13 at The Cloister, Sea Island, Ga., was the election of officers for the coming year. J. A. Conner, vice-president and general manager of Hyde Park Mills, Covington, Tenn., was elected president for 1958, succeeding M. Y. Cooper, vice-president and treasurer of Harriett Cotton Mills and Henderson Cotton Mills, Henderson, N. C.

Other officers for the coming year include A. J. M. Wannamaker, secretary and treasurer of Orange Cotton Mills, Orangeburg, S. C., who was elevated from second to first vice-president; and L. E. Bowen Sr., secretary and treasurer of Tifton (Ga.) Cotton Mills, who was named second vice-president to succeed Mr. Wannamaker. Continuing as executive vice-president and secretary-treasurer of the association is E. O. Fitzsimons of Charlotte, N. C.

Named to the association's board of directors with terms expiring in 1958 were W. R. Austin, Sylacauga, Ala.; R. T. Davis Jr., Columbus, Ga.; Halbert M. Jones, Laurinburg, N. C.; J. M. Ledbetter Jr., Rockingham, N. C.; and Manning Malloy, Cheraw, S. C. Newly-elected board members with terms expiring in 1959 include G. P. Barnwell, Macon, Ga.; and D. R. LaFar Jr., Gastonia, N. C. Continuing members of the board include E. B. Borden III, Goldsboro, N. C.; C. V. Garth, Hickory, N. C.; B. D. Banks, Graniteville, Ga.; H. L. Battle, Rocky Mount, N. C.; C. L. Little, Wadesboro, N. C.; Harold Mercer, Gastonia, N. C.; Frank Pate, West Point, Ga.; and Ernest Rees Jr., Fayetteville, Tenn.

All textile fiber consumption, including cotton, wool, all the synthetics, rose slightly in this country between calendar 1948 and calendar 1956. It declined, as I said, in per capita terms; but for the total population there was a very modest increase. If cotton had shared with the other fibers in this slight increase, instead of suffering a slight decrease, the mills last year would have consumed about 375,000 more bales of cotton. This relatively small margin represents all the difference there was in the trends of all fibers across these years as compared with the trend for cotton alone. Some of this small difference, incidentally, took the form of synthetic filament yarn which completely by-passes the spinning industry.

With the growth of high tenacity yarn and of non-cellulosic filament yarn, it has become significant to make a certain refinement in these figures. Because of the waste factor, and because of differences in strength-to-bulk ratios, a pound of synthetic fiber has a tendency to offset more than a pound of cotton. If we convert the synthetic fibers to cotton equivalent in this sense of the word, we find that the increase in textile operations was somewhat larger than the increase which we noted above by just considering pounds of fiber. Most of this additional increase occurred at the weaving but not at the spinning stage, because it came mainly in synthetic filament yarn. If cotton had shared fully in this additional increase, there would have been another 400,000 bales consumed in 1956.

This makes a total loss for cotton of about 775,000 bales to fiber competition between 1948 and 1956. But even after making this full allowance for the competition from other fibers, we find that most of that three million bale market which cotton failed to get—actually about 2¼ million of it—remains to be explained.

Decline In Exports

The next item which ought to be accounted for is the decline in our exports of yarns, fabrics and fabricated textile products, and the increase in our imports of those things. By rough estimate this seems to account for about 600,000 bales. If we had held the same amount of net exports, over imports, in 1956 as in 1948, approximately 600,000 more bales of cotton would have been consumed by our mills. Now this leaves a little more than half of that three million bale gap, representing cotton's failure to keep up with the whole economy, still to be explained by other things that were competing for our market.

What were those other things? We don't have to go far afield to find the biggest part of the answer. We don't have to lay nearly all of this to automatic transmission, air conditioning, convenience foods and other things that we don't know much about. If we look closely at the very markets which the textile industry has always served, we will find that a surprisingly large part of this whole deficit is explained by our losses to non-textile materials in our *own* traditional textile markets. The Cotton Council's Market Research Department recently made a survey of those losses. Some of the estimates are necessarily very crude, but the total result is probably not exaggerated at all. The department estimates that the losses by cotton to non-textile materials in long-standing uses for cotton prod-

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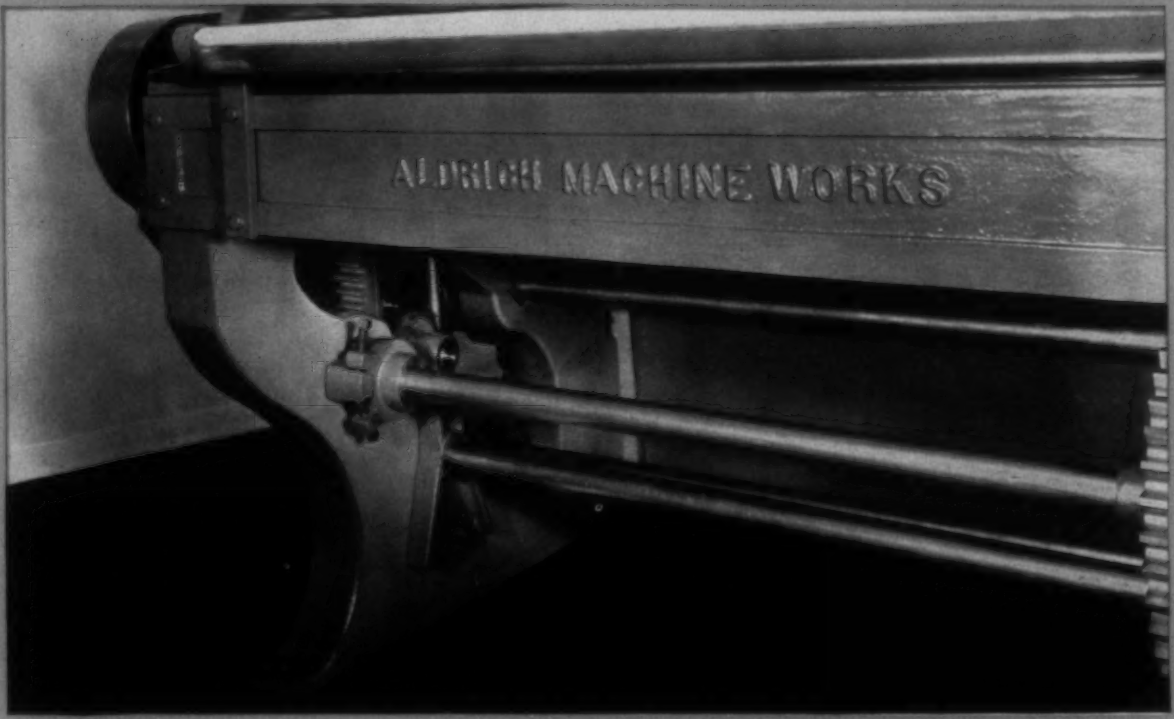

As long as there have been pickers, there has been trouble with the shoes that hold the calender rack gears in mesh with their spur gears on the cross-shaft.

These shoes are not on the Aldrich calender. The roller, pictured above, running on an Oilite bushing and attached to a mounting pivoted on a stationary shaft in the calender, holds the calender rack gear exactly in place without any possibility of binding or jamming.

Furthermore, to make sure that the cross-shaft can't stick in a dry bearing, this shaft is mounted on ball bearings, which are permanently lubricated.

This is one of the many improvements in the Aldrich picker which eliminate trouble and help to make better laps.

AldricH MachinE WorkS
Greenwood, South Carolina

"The cotton industry, working through the National Cotton Council, has always shunned all proposals to use its considerable political strength in the interest of legislation that would be restrictive in any sense to the synthetic industry. Rather than resent or oppose the synthetic industry, we have concentrated upon studying it and learning how to compete with it. In the past decade or so we have learned some important lessons from the synthetic industry and we have taught it a few."

ucts, between 1948 and 1956, have amounted to just under a million bales of cotton—about 950,000 bales. This is the biggest part of the whole answer.

Finally, to complete our break-down of the three million bale market that cotton failed to get, we can speak of the last 675,000 bales as "All Other." Here we do have an indication of losses which we have sustained primarily to the sellers of other types of goods and services which have been able to chip off larger fractions of the consumer dollar. The research and promotion of other dynamic industries have been a prime cause of this. Many technological changes have contributed to it, including central heating, mechanization and numerous others.

And here we have a summary of where that three million bale market went:

	Bales
Other fibers	775,000
Loss of net textile exports	600,000
Non-textile materials	950,000
All other	675,000
Total	3,000,000

What is most impressive about this summary of the reasons why the consumption of cotton has not expanded? One thing is this: While cotton has a great problem in competing with other fibers, this has not actually been its greatest problem in recent years. Its greatest problem has been how to compete, along with other fibers, against the forces which have held back the growth of the whole textile market.

And another thing is this: Of all the forces which have held us back, the greatest is the one which is closest to our own door-step—the non-textile materials which have been taking our long-time textile uses away from us.

What are those non-textile materials? The biggest one is paper. The second biggest, by far, is plastic and especially plastic film, of both the vinyl and the polyethylene types. Then there are many others—rubber, glass filament, the various metals, wood. There is hardly any structural material today which is not being pushed hard in some of the uses that have always belonged to textiles.

Non-Textile Materials

Our Market Research people can tell you quite a story of this infiltration into our long-time markets—all up and down our great list of end uses. The big uses served especially by carded sales yarn are certainly not exempt. For example we might think of electrical insulation. In the past decade of vast expansion in the use of electricity, this market for textiles has actually declined. Electrical insulation would be a million-bale market today if textiles held it, but textiles hold little more than a tenth of it. Plastic, paper and glass hold the bulk of it.

Or we might think about upholstery fabrics—and especially seat covers—where plastic film, monofilament and paper all take their toll. Or we might mention the competition of metal, of rubber, and of leather in the machinery belt field—of plastic in Venetian blind tape—of paper and plastic in meat stockinettes — of gummed tape replacing cotton twine—of interlinings made of unspun synthetic waste—water hose made of plastic material—tarpaulins replaced by vinyl coverings—and so on.

When we think of it, it's very easy indeed to see where textiles suffered this net loss of a million bales in their own traditional uses during this recent period of eight years. Across these eight latest years the manufacture of all textile products in this country has risen only about 8½ per cent. But across these same years—if we allow for the net change in textile exports minus imports, and if we allow for the textile uses that have been filled by non-textile materials—we see that the consumption of products that have traditionally been textile products by the American people has expanded about 26 per cent.

I think this makes the whole outlook considerably different from what it otherwise would be. You know, we have long been afflicted by a theory that in an advanced country such as ours textile consumption just naturally doesn't rise as fast as the consumption of other things—and there's nothing you can do about it. In a country of poor people, so says the theory, if income rises the people will spend a big part of the increase upon textiles. This part of it is very true, as a general thing, and very important. But in a rich country like our own, it goes on, if income rises people already have about all the textile products they want—so they spend nearly all of the increase on other things.

Now there is something to this theory all right, but people are sometimes prone to take it too seriously. It does not allow for the power of modern research and promotion to mold and fashion the spending habits of people. It does not allow for the great importance of industrial uses for textiles in a big industrial country like our own. In any case it does not explain very much of our trouble today because in actual fact we see that the consumption of those things that have always been made of textiles has come pretty near to keeping up with the total American market in these eight years of the most rapid expansion it has ever known.

We don't have to wonder whether the markets that are now served by textiles can expand in this country. The *are* expanding. Probably they could be made to expand faster —but they *are* expanding. What we do have to wonder is whether textiles in general, and cotton in particular, can hold them as they expand—whether we can do a better job of this in the future than we have done in the past.

Three Factors Of Competition

When one material competes with another for any market, the issue is usually decided by three main factors of competition: price, quality and promotion. Promotion is just as essential as anything else, but I want to say just a word about price and quality, because my own work has brought me a little closer to those two.

Obviously the price of the raw cotton is the main cost factor in the price of the yarn or the fabric which comes into direct competition with paper or plastic film or something else. The raw material is not the only cost factor by any means, but it is the biggest one. Obviously the price of cotton is important in this struggle for end-use markets.

There is a great deal of evidence that the farmers themselves are more aware of this than they have ever been before. Only two and a half years ago the farm organizations themselves asked the Cotton Council to make a thorough study of price as it affects the future of U. S. cotton. You probably have seen the result in the little booklet which we published in 50,000 copies, and distributed mainly to farm leaders from one end of the Belt to the other. The farmer has been feeling the double squeeze of reduced acreages and of higher prices for labor and materials, and he, like the manufacturer, finds that in order to meet the test of competition at all today, he has to see a good enough future ahead to justify large investments in new equipment. Yet the farmer has shown a remarkable willingness to listen to such facts as this one which we presented for the first time in our price study: "As of that time, some years ago, the true mill cost of cotton for most uses was generally from four to eight cents a pound higher than the true mill cost of rayon staple, and since that time the difference has widened by another cent or two."

Mind you, this is a cotton man, not a rayon man, talking—and this is a message that cotton farmers have been hearing and thinking about very earnestly from the Carolinas to California. We have carried them this information on film in hundreds of grass roots farm organization meetings, and they have heard it through staff reports in many hundreds more. The farmers themselves are learning more about how price is involved in carrying their cotton into consumption.

What about the cost of production? Across the past ten years the cost of producing nearly everything in this country has gone up. How about cotton? From a study recently completed by the Department of Agriculture, for the period through 1955, and carried forward to 1956 by our own staff, it appears that for the Cotton Belt as a whole the average cost of producing a bale of cotton, if farmers had been free to plant what they wanted to plant, would have been no more in 1956 than it had been ten years earlier, in 1946.

This is a very favorable sign for cotton. Few of its competitors can match it. We have just completed a study of the cost of producing rayon staple fiber in a new, efficient plant in the U. S.—and we have found that across these same ten years it has gone up five or six cents a pound. Rayon has made good strides in production efficiency, but they have not been good enough to offset the rising costs of labor, pulp, and so on. The same thing evidently is true of our No. 1 non-textile competitor, paper. Our sharpest evidence of this is in the price. During the past ten years, looking back from the middle of 1957, both cotton and rayon staple have had a moderate net decline in price—but the index of paper prices is up by 50 per cent! And it has continued rising in recent years.

All this suggests that cotton, our No. 1 textile fiber, has an excellent chance to improve its competitive position in the field of price during the years ahead. This depends in part on the farmer's continued search for a clear understanding as to what level of price, and what kind of price, will be in his own best interest—and our continued effort to supply him with that information in an objective manner. And it depends, more basically, upon a continuation of those things which have given him such an outstanding record in holding down his cost of production. This achievement has come partly from a shift to more efficient lands, not only within the Belt as a whole, but within each region, each county, each farm—and from the trend to larger farming units which has been so pronounced all over the country. And it has also come, in a large part, from the technological revolution that is sweeping over the cotton farms of this nation. Yields per acre are 50 per cent higher than they were just five or six years ago. Production per man-hour is about 75 per cent higher than it was ten years ago. This progress is, for the most part, just a clear-cut demonstration of what science and engineering and capital and management can do for cotton production.

Beginning Of Progress

We have only seen the beginning of the progress that we may get. Research holds a greater potential for further cost reduction in cotton than in most commodities. If we give research the backing it needs, especially the more fundamental types of research, we may see priceless secrets laid bare for us in the years ahead, secrets of revolutionary portent for further cost reductions, in such matters as

"While cotton has a great problem in competing with other fibers, this has not actually been its greatest problem in recent years. Its greatest problem has been how to compete, along with other fibers, against the forces which have held back the growth of the whole textile market."

how to kill insects more efficiently, how to make a cotton stalk carry 50 or 75 per cent of its bolls to maturity instead of 40 per cent, and so on. We have the biological sciences on our side—genetics, plant physiology, and so on—as well as the chemical and physical sciences—and our best cotton scientists feel that we have only just begun to unlock their secrets of how to produce economically.

Research also holds a greater potential for quality improvement in cotton than in most other commodities. I will just say a word about one side of this, the spinning quality of the raw fiber. I am sure you know, better than any one else, that the quality of cotton is wonderful but that sometimes it can give you a pain in the neck. There seems to be little denial among the experts that over-drying and over-machining in the gin can injure cotton, but that the resulting injury is hard to detect and to discount properly until the cotton has been purchased and started through the spinning mill.

One part of the remedy for this is in educational work, and a fine start in this direction has been made. It includes the short training courses for gin operators at both the regional and local levels, the training courses in mechanical picker operation, the emphasis on gin extension work, etc. It includes the new work in gin engineering which is being introduced at the college level. All this is bound to have a good effect upon the quality of the cotton that comes from our gins.

But I would like to emphasize an even more fundamental part of it. I am far from an expert on this myself, but the experts certainly are convincing when they say that we don't have methods of measuring the quality of cotton in the ordinary channels of trade which are as complete and as simple as we need. Today the farmer produces and sells his cotton and it moves through the channels of trade on the basis of inadequate knowledge as to what its quality will turn out to be when it comes to the practical test of actual spinning. The spinner buys the cotton, not knowing what its true cost is, because its true cost is inseparable from its spinning quality. I am told that there is not another commodity one-half or one-tenth as important as cotton which is produced and sold with such imperfect knowledge of how one commercial unit will vary from another when they come to the test of actual use.

This kind of unsolved problem is an example of the difficulties we face, but it also exemplifies the extraordinary opportunities which are ours to go forward from where we are. Better methods of commercial quality measurement will not be easy to develop, or we would have had them already. But this is a typical problem for modern research, reaching into some of the fundamentals of physics, chemistry and mathematics. It is not an insuperable problem. Some good leads exist already. It is not the kind of problem that our friends, the synthetic fiber manufacturers, would neglect. They would surely have a big, fine staff of scientists at work on this one. While some able and dedicated men are at work on this cotton problem, I am reliably told that there is no place today where any basic research, involving more than a man or two, is being concentrated on any part of this problem of finding better ways to measure the quality of our fiber. But a real, concerted, industry-wide effort is now getting under way to take hold of this particular problem and see to it that we get a lot more of the research that we need.

Think what it would mean if more complete tests of the true spinning quality of cotton were in use today in the ordinary channels of trade. The individual mill buyer would have a better method of distinguishing good cotton from bad, but this is just the beginning of the story. The real effects would reach all the way back through our cotton growing economy, and they would bring a new emphasis upon quality improvement from one end of it to the other. How can we expect the farmer to produce for quality characteristics which do not show up in the price he gets for his cotton, and how can we expect the ginner to plan his operations for quality characteristics which don't show up in the price his customer receives, as distinct from those which do show up in the price? If we construct a better method of measuring quality in the ordinary channels of trade, the merchant will pay for that quality, the ginner will gin for it, and the farmer will produce for it. What's more, the breeder will breed for it, the gin machinery manufacturer will work toward it, and the whole industry will give it the consideration it deserves. Better commercial tests could revolutionize the emphasis upon quality in raw cotton production, in raw cotton handling, and in raw cotton research. Cotton is a good fiber already—the best the world has ever seen—but we have tremendous opportunities to improve its quality, just as we have to lower its cost of production.

To meet the challenge of our competitors, we have to move forward in ways such as this. Cotton has competitors for the fiber market. We all face an even more aggressive form of competition in the non-textile materials that are moving into the textile market. This competition has to be met with the combination of price, promotion and quality. If we meet the test of our competition, we have the srongest kind of assurance that our domestic market will expand. Our potential market has been expanding handsomely right through these difficult years, and there is little question that it is going to keep on expanding. The question is how strongly we are going to compete for it. If we get ourselves a strongly expanding market in the years ahead, we shall have the first and certainly one of the foremost requirements for a prosperous industry.

> **"We don't have to wonder whether the markets that are now served by textiles can expand in this country. They ARE expanding. Probably they could be made to expand faster—but they are expanding. What we do have to wonder is whether we can do a better job of this in the future than we have done in the past."**

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Wet Processing Chemicals and Auxiliaries: *Dye Assistants, Penetrants, Rewetting Agents, Sanforized Fabric Oils, Detergents, Scouring Agents, Softeners.*

Niagara Twist-Setter: *Yarn Conditioning Penetrants.*

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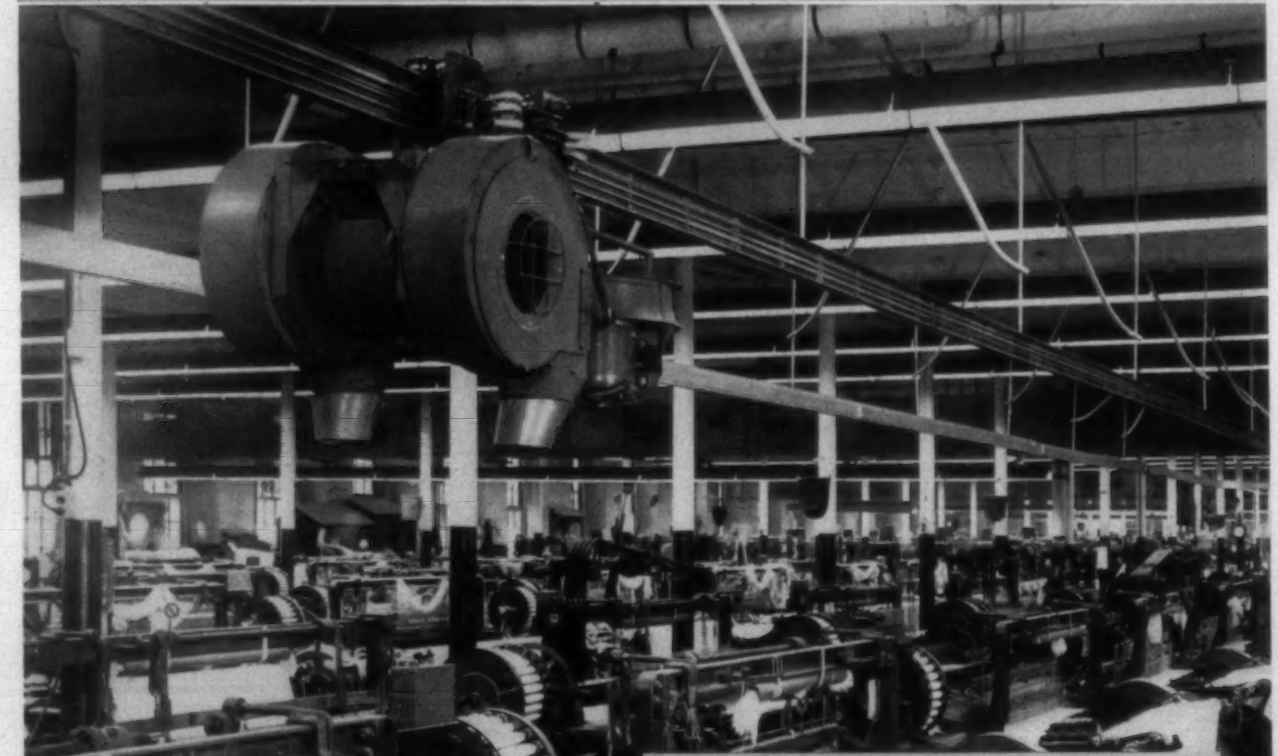

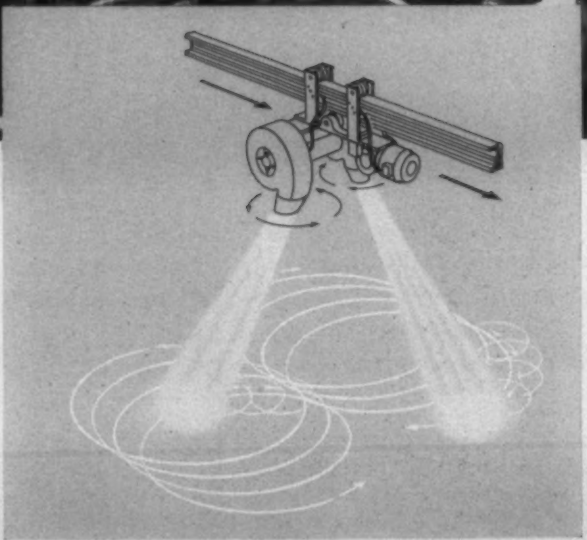

Swiftly whirling outlet nozzles, driven by the air stream, direct the air jets at an acute angle in overlapping, circular paths. The result is a rapid series of high-velocity bursts of air over loom and warp surfaces for complete cleaning action.

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A Profile

T W Church Jr

Thomas W. Church Jr.

Executive Vice-President
Highland Park Mfg. Co.
Charlotte, N. C.

By **HAZEL TROTTER**

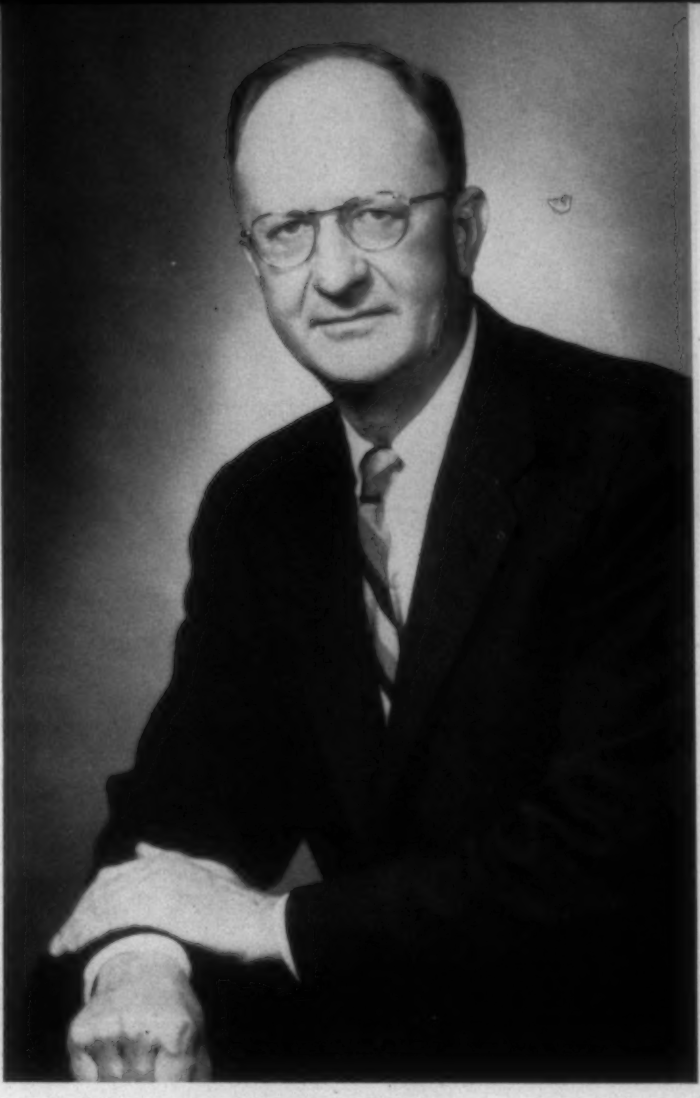
"COMPLACENCY is a luxury no textile manufacturer can afford." If there is any man in the industry who subscribes to this observation, it is Thomas W. Church Jr., executive vice-president of Highland Park Mfg. Co. And you'd have to look a long time before finding anyone less complacent than he is. What he thinks is good for the industry, he considers as very good indeed for Highland Park Mfg. Co., with the result that the company's mills are modern and efficient and the work of improving both process and product is unceasing.

As executive vice-president of Highland Park, Mr. Church heads the largest and one of the most successful operations under the control of Johnston Mills Co., Charlotte, N. C., which controls eight plants in North Carolina and one in South Carolina. After 31 years in textiles—all spent with Johnston—and 29 of these in positions of steadily increasing responsibility, Mr. Church has never strayed very far from manufacturing. He would have you believe he is first, last and always a production man. But to accept this would be to ignore the fact that he has a thorough knowledge of all phases of the business, from raw cotton through sales.

A Good Operator

His liking for production stems from his having come up through the mill rather than through finance or sales. And when other mill men refer to him as "a good operator," which they unfailingly do, it is an indication that he stands well in the trade, both as a manufacturer and as a person.

There is an engaging friendliness about him, and he genuinely likes people. As usual, this is repaid in kind, and he is popular in the mill as well as on the golf course. He is active in his church—Christ Episcopal—and participates in industry and community affairs. He helped to organize and was the first president of the Greater Charlotte Textile Club, composed of representatives of textile and associated industries of the Piedmont Carolinas, who get together once a month and generally discuss new processes and old problems. He is a member of the advisory board of the North Carolina Vocational Textile School, serving last year as chairman, and is also a member of the Charlotte Rotary Club.



Thirty-one years in textiles . . .

Week-End Golfer

Like many people filled with driving, restless energy, Mr. Church lays claim to being inordinately lazy, yet he plays golf early and late, generally spending his Saturdays on the Myers Park course and transferring to the links at Charlotte Country Club on Sunday afternoons. His game is fairly sound for a week-end golfer and he normally shoots in the middle eighties.

Afternoons, often as not, he fishes stocked lakes and ponds of his friends. His camera goes along with him, for he feels it would be a shame not to record a good catch or to miss a chance to shoot a picture of a friend's child. He has been "fooling with photography," as he expresses it, for 25 years, and his technique is above that of most amateurs. He prefers to work in color, finding its requirements for exactness best suit his temperament and engineering background. In a year's time he shoots a great deal of film and wastes little. Once he did his own processing but gave it

Mr. Church has served under three presidents of Johnston Mills Co.—C. W. Johnston, who founded the parent company; Horace Johnston, son of C. W.; and now David R. Johnston, shown here with Mr. Church. The portrait is that of the late Horace Johnston.

up when he got into color because it required so much time as to be burdensome.

Usually both movie camera and his Leica accompany him on the two annual fishing expeditions he looks forward to most, one to Bimini in the Bahamas for marlin and the other to the Gaspe peninsula in Quebec province for Atlantic salmon, which he considers the gamest of all fish. Of course, both cameras go along when he and Mrs. Church go to Fayetteville, N. C., to visit their daughter, Mrs. C. B. Culp, whose husband is with Southern Dairies, and their two small sons, Charles Jr., three, and Thomas William, two, named for his grandfather. The Leica, his .35 mm. camera, he usually keeps in the lower right-hand drawer of his desk, together with transparencies, exposed and unexposed film.

Digging into a desk drawer for a report during a conference on some mill matter, he is likely to bring up with it a beautiful color transparency, hold it up to the light and say with almost wonderment, "I remember the day I caught this fish. It was on the Bonaventure River in the Gaspe in '47—caught it with a five-pound test line. . ." And without a pause, "That yarn came off here at No. 1 last week. Since then we have . . ." hardly realizing he had made a trip to the Gaspe in a breath.

Production is his forte—not because it is what he knows best, but because it is what he likes best. He spends a great deal of planning and effort on it. An old-timer, now retired, said once, "Name anything in a cotton mill and Mr. Church has done it—and could still do it if he had to." Associates say he can figure more ways of making a machine pay for itself in reduced costs and improved product than any man they know.

Integrated Operation

Highland Park is an integrated operation. It manufactures its own yarns and produces a wide assortment of fancy dress goods and shirtings. It markets its products through J. P. Stevens & Co., its selling agent since 1935.

Mr. Church has been at Highland Park since Aug. 1, 1932, first as secretary and later as secretary-treasurer, succeeding the late J. L. Spencer. He became executive vice-president upon the death of Horace Johnston in 1949. He has served under three presidents of Johnston Mills Co.—C. W. Johnston, who founded the parent company and died in 1941; Horace Johnston, his son; and now David R. Johnston, the third in the family line to hold this office.

Highland Park consists of three mills, two of which—No. 1 and No. 3—are in Charlotte. The third—designated as No. 2—is in Rock Hill, S. C., and manufactures combed broadcloth. Together these plants have 63,186 spindles and 1,510 looms. Spinning is done at all the plants and weaving at both No. 2 and No. 3.

Highland Park accounts for more than a third of the spindle capacity of all of the Johnston mills. The No. 1 plant has 18,720 operating spindles, and No. 3, where weaving, bleaching and dyeing also take place, has 25,746 spindles and 1,130 looms. The Rock Hill plant has 18,720 spindles and 308 looms, all devoted solely to combed broadcloths.

Highland Park's two Charlotte plants are within the city limits. Employing 1,200 persons, they not only are Charlotte's biggest textile operation but also, with possibly a single exception, the city's biggest employer of labor. The 400 workers at the Rock Hill plant bring the corporation's total employment to 1,600, accounting for about half the labor force of the entire group of mills.

Operating Head

Mr. Church, as his title signifies, is the operating head of the company and to a great extent determines its overall policies. His headquarters are at Highland Park's general offices, a new building adjacent to the No. 1 plant. He works, of course, under President David Johnston, who in addition to being titular head of Highland Park is also president of the parent company and several other corporations it controls.

Except for Highland Park's activities, Johnston Mills stays strictly in its own niche in the yarn business—producing carded and combed yarns from 10s to 80s, single and two-ply, for the knitting and weaving trades. Each of its six yarn mills is a separate corporation, headed either by David Johnston or C. J. Stokes, secretary-treasurer of the parent corporation, which also owns Anchor Mills Co. It in turn owns the Johnston Building in downtown Charlotte, which was erected in 1924. The building is the city's second largest and second tallest (17 stories). The corporate name, Anchor Mills Co., is kept in existence for convenience and sentimental reasons. Originally it operated a yarn mill in Huntersville, N. C., a few miles from Cornelius, where the founder of the companies got his start in the textile business. The fourteenth floor of the Johnston Building houses general offices of the Johnston companies.

Johnston Mills Co. is a selling agent as well as a holding company and markets the yarns produced in its mills, maintaining sales offices in Charlotte, Winston-Salem, New York, Chattanooga, Stamford, Conn., Reading and Philadelphia. Mercerizing, bleaching and dyeing of the yarns are done at its Spinners Processing Co. plant at Spindale, N. C.

There is a distinct division between the company's yarn operations and those at Highland Park Mfg. Co. Highland Park is the only corporation which has its own general offices. Too, its stock is more widely distributed than that of the other corporations Johnston Mills Co. controls. Highland Park's common stock was split 10 for 1 in 1952, and now is selling at around $20 a share.

Mr. Church sticks pretty much to his own bailiwick, although he is a member of the boards of directors of several of the other Johnston corporations and a member of the policy committee formed when David Johnston succeeded to the presidency.

Up Through The Mill

Tom Church came to Johnston Mills as an apprentice, the bottom of the ladder. Now at 53 he might be termed a "mill man's mill man," for there are few jobs dealing with cotton textile manufacturing he hasn't filled, either in the mill or in the front office. If he were inclined to be introspective—which he isn't—he could look back on his first six years as a basic training period. And had he ever shown any inclination toward complacency he probably would have gone only half-way up the ladder and have become a cracker jack superintendent, who could keep his mill running at top efficiency without seeming to work at the job at all.

He came up through the mill, literally and figuratively, and during some of the toughest times the industry ever has experienced. When he stops to think about it, he realizes he had the benefit of valuable training and just as valuable experience. If Horace Johnston had doubted for a moment that Tom Church Jr. had the makings of a mill executive he never would have made him his assistant back in 1930. Nor would C. W. Johnston have spent many a night teaching the young man the intricacies of mill financing and accounting. "I lived at Mr. Johnston's home for about six months before I was married," Mr. Church recalls, "and in those six months I learned more about mill finance than I ever learned before or since."

N. C. State College Graduate

He had joined the Johnston organization in 1926, a young textile engineer, fresh from the School of Textiles at North Carolina State College at Raleigh. The ink on his degree, Bachelor of Science in Textile Engineering, was hardly dry when he reported for work on July 1. Horace Johnston, who was head of Johnston Mfg. Co., as well as in charge of yarn production of other yarn mills in the system, put him to work in the shipping department with the observation that it was "as good a place as any to start learning the business."

The cotton textile industry has turned over many times since Tom Church found himself on the shipping platform of Johnston Mfg. Co. in 1926. He has been a part of its convolutions ever since. The industry was coming to the end of a boom in the Carolinas and refused to recognize it. It had nearly 38 million spindles in place and 6,075,000 of these were in North Carolina, which was still building mills. A year later there would be 6,199,000 spindles in the North Carolina industry. Now spindleage has shrunk to 21.4 million and North Carolina has 5.8 million of these, 90 per cent of which consume cotton alone.

What Tom Church knew about the industry he had learned in his textile engineering courses and laboratories at N. C. State and as a worker in the Arcadia Mill at Ronda, in Wilkes County, N. C., during college Summer vacations. By the time he had finished his "apprenticeship," which included just about everything an energetic young man might be expected to do in a yarn mill, the industry was undeniably headed for "bad times."

He may not have realized it then, for he had been a busy young man those two years, working in the mill and in the office—shipping and receiving, running machines, making up pay rolls—learning some bookkeeping, and, he hoped, a few of the fundamentals of manufacturing and management.

Superintendent Of Arcadia

He must have done pretty well, for at the end of this period he was sent to Ronda as superintendent of Arcadia. He was 24 years old, young for a superintendent. The fundamentals he had not learned in his apprenticeship, he had to learn, and quickly. As he remembers his two years there he got "along all right." He had 150 men under him and his two overseers, each of whom drew $24.60 a week, were his highest paid employees. It was his first management job and he had "to do everything." This "everything" meant running the mill, hiring workers, making up pay rolls, seeing to shipping, and, on occasions, filling in on jobs in the mill until replacements could be hired.

Arcadia was little different from what it had been when he took his first job there. Its 5,400 spindles were still turning out coarse carpet yarns. Many of his employees had worked with him in previous Summers. Others had known him from infancy. It didn't make his job any easier.

What he lacked in experience he made up for in energy and ability and he turned out carpet yarns against a diminishing and disappearing market. It was no reflection on his ability that by 1930 there was little market either for yarns or for carpets. The mill shut down and he returned to

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Mr. Church finds relaxation in fishing, playing golf on week-ends and amateur photography. He landed the above white marlin on a fishing expedition to Bimini in the Bahamas. Another of his favorite fishing haunts is off the Gaspe peninsula in Quebec where he can do battle with Atlantic salmon.

Charlotte as assistant to Horace Johnston in the operation of the company's spinning mills.

He was 28 years old when he went out to Highland Park. By that time the country was deep in the depression. Highland Park, Johnston Mfg. and all the other mills in the Johnston system were suffering along with the rest of the industry. Wages dropped to $9 and $10 a week. Looking back on those days when mills ran one or two days a week and still sold their production at a loss, Mr. Church often wonders how any survived. Highland Park always had had a good record in community relations. Management worked to figure ways to make it possible for employees to keep going from day to day. Unable to pay workers a living wage, it made houses in the mill villages rent free. "We always hoped things would get better," he says now, "but they got much worse before they began to improve." The N.R.A. brought some upswing in textile activity, he recalls, but when it was kicked out by the Supreme Court it was again "touch and go."

He wasn't as familiar with the whole system then as he is now and says, "It was hard going all through the thirties. You might make a little money one place and lose it somewhere else. Of course, there was little chance to improve your machinery. Mills just didn't have the money to do it."

Civic Consciousness

From its beginning, Highland Park has had a civic consciousness more pronounced than many of its competitors. When Mr. Church joined Highland Park, the company had its Y.M.C.A. and fielded a baseball team of almost professional caliber. The team played its games, not in a vacant lot, but in a real park, complete with a grandstand. And many a good depression-earned Highland Park dollar regularly went toward community projects.

The pattern has changed with the years and baseball is no longer a dominant cotton mill sport. But the park still is used and maintained. Now the North Charlotte Foundation Inc. carries on community activities. David Johnston is president of the foundation. Mr. Church is secretary and treasurer. A few years ago the foundation spent $500,000 on a new Y.M.C.A. which serves as a center for recreational and cultural activities of the community. And it has invested $160,000 in an indoor swimming pool for employees and their families.

The foundation also has a scholarship fund to provide opportunities for a college education for young men and women who either work in the mills or are related to employees. Each student receives $500 a year from the fund and is given enough employment during the Summer to earn $500 or $600 more. The foundation awards one four-year scholarship each year, and hopes, of course, but it isn't a requirement, that these scholarship winners will attend textile schools.

Speaking of the industry's current need for college-trained specialists reminds Mr. Church of how he happened to get into textiles in the first place. It is a story worth telling, if for no other reason than that it shows how a word or a phrase sometimes sways a young man in one direction or another. He did not have a textile background. His people were in lumber. And had he been out in the yard measuring lumber as he was supposed to be doing one Spring day in 1922 instead of listening to what Horace Johnston was telling Tom Church Sr., he probably would have grown up to be a lumberman instead of a textile man. And in all probability he would now be running a string of furniture plants instead of Highland Park's mills.

A Chance Remark

A chance remark put him in the textile business. It was Mr. Johnston's saying that the growing industry in North Carolina could use all the textile engineers it could get, men trained for the business in a textile school, "such as the one at North Carolina State College in Raleigh."

There was more to the conversation than this, of course. The two men discussed the textile outlook in the South. Mr. Johnston and the elder Mr. Church were friends. In a way they were business associates, for the Church box factory manufactured wood shipping cases—box shooks they were called—and textile manufacturers, Mr. Johnston among them, were customers. To keep his box factory and furniture plant supplied with raw materials Tom Church Sr. operated a string of saw mills in Wilkes County. One of these was at Ronda, in the neighborhood of Arcadia Mills. Mr. Johnston made frequent trips to call on Arcadia and often would have a mid-day meal at the Church home.

His trips to Arcadia were in the interest of Johnston Mills Co., which was selling agent for Arcadia's yarns. From the frequency of his visits to the county, which had three yarn mills—all built during World War I expansion—it seemed likely that the selling agent was helping Arcadia with its financing as well as with its yarn sales.

Tom Church Jr. was 18 at the time, a senior at North Wilkesboro High School. He had not grown up in idleness. His father had seen to that. Together they had cruised timber. Young Church had worked around the saw mills, first doing chores and later graduating to "a man's work," stacking lumber, loading wagons and trucks, and finally measuring and tallying.

During the Spring of his graduation from high school, there had been a good deal of conversation around the dinner table about his future education. His aunt, with whom he and his father and sister had made their home at Ronda since his mother's death two years before, thought her nephew should go to the University at Chapel Hill for a "classical education." Tom's uncle was just as convinced that he should enroll at Wake Forest. The elder Mr. Church, hopeful, like all fathers, that his only son would join him in his own business and gradually take over, didn't try to influence the boy. Usually during one of these family conferences he would say, "Go anywhere you like, son. Just be sure you learn how to make a living."

This was in the back of his mind as he sat listening to his father and Mr. Johnston discuss textiles. "It was getting along toward the end of the school term," Mr. Church says, "and it seemed to be a business with a future, so I finally decided to write for a catalog. When that came I looked it over, talked with the family about it, and decided to go to State."

Between the time of that decision and the time he returned to Ronda as superintendent of Arcadia, the Johnston interests had taken over the mill and were operating it. During Summers while he was at State he worked in the mill instead of in one of his father's businesses.

In 1922 there were few if any textile men who saw anything but a rosy future for the industry. It had quite recovered from the post World War I slump of 1921. It was beginning to grow again. The country's economy was expanding. New cotton mills were being built all over the South, especially in the Carolinas. It was freely forecast that the next few years would see practically all of New England's mills in the South, close to raw materials, a good labor supply, and in the midst of a growing market.

The elder Mr. Church talked about it. He saw the new mills going up as he traveled over the Carolinas. His box factory was feeling the effects of this expansion, and his saw mills were kept busy supplying pine for the box factory, whose sales were climbing.

It would be nice to think that Horace Johnston back in 1922 saw in 18-year-old Tom Church Jr. a future assistant and mill manager and that young Church saw in Mr. Johnston his future employer. However, that wasn't the case at all. As Mr. Church recalls now it wasn't until he was a student in the textile school at State and was working at Arcadia in the Summer, that Mr. Johnston said once on a visit to Ronda, "When you finish your course at State, come to see me."

The remark made so little impression on young Tom Church that in his senior year he accepted a job with Appleton Mfg. Co. at Anderson, S. C. The year 1926 was a good one for textiles, as it was for the whole economy. Mills were recruiting likely talent from the college classroom. Young Church and most of the other seniors in the textile school had any number of job offers. Church decided to go to Appleton because it seemed "one of the best of the lot."

"I was at home shortly before I was to graduate," Mr.

Highland Park's No. 3 plant at 2901 North Caldwell Street in Charlotte.

Church remembers, "and Mr. Johnston was up at Ronda for some reason. It must have been during Easter holidays. He asked me when I was getting through down at State and I told him 'In about six weeks.' I actually was surprised when he said, 'You're coming to see me, aren't you? I've got a job for you.'

"For some reason, I couldn't bring myself to tell him I already had a job. As a matter of fact, I'd forgotten he ever mentioned anything about a job to me, if he had. I don't remember just how I answered him when he asked me to come to see him. I probably told him I would.

"After he had gone I told my dad I was in a mess. It looked like I had accepted two jobs. My father told me I'd have to work it out myself and decide what I wanted to do. When I got back to Raleigh I explained my predicament to the dean. He hadn't sent my acceptance in to the people at Anderson, so I was all right."

Church got his degree—along with some 25 other budding engineers—and left shortly afterward for Fort McPherson, Ga., just outside Atlanta, for his R.O.T.C. Summer encampment. He had taken military training while at N. C. State and was a reserve officer. In six weeks he was back at Ronda and ready to report to Johnston Mfg. Co. for his first job.

Mill Finance

The days of high profits had ended for textiles at the time Mr. Church entered the industry. He was already at Highland Park when Mr. C. W. Johnston drilled accounting into him. And he absorbed much more than mill finance during those night sessions at the Johnston home. He learned the importance of the human equation in mill management. In a way it was a post-graduate course in everything he had learned in his association with Horace Johnston. "A mill manager cannot afford to ignore the human element . . . mills are more than spindles and looms . . . loyalty has to be earned . . . a mill may survive in 'good times' without paying attention to its community, even as it may survive for a time without a planned program of machinery replacement . . . recreational programs . . . participating in worthwhile community endeavors may appear expensive at first glance but pays off in the long run if soundly conceived . . . never become complacent . . . if a man or a mill has to run to keep up neither will ever get ahead . . ."

It is not unusual for a senior executive to pass along to a junior executive some of his own guiding principles and his own philosophy of management. Tom Church has had reason to reflect many times on the advice he received from C. W. Johnston. And there are those who profess to see in Mr. Church's operations at Highland Park some of the qualities of both C. W. and Horace Johnston.

Mr. Church spends more time in the plants than most executives. And in a day he may look in on every process and still find time to discuss some phase of the Summer recreation program with the Y.M.C.A. director and check on the quality of cloth being produced by a new machine. Highland Park's mills are constantly adding new machinery, just as are the others in the Johnston group.

Consumer Conscious

Mill managers and officers of the affiliated companies are as consumer conscious as they are production conscious. Every new product is analyzed for its "customer appeal" before it goes into production. Better finishes, more attractive designs and higher standards of quality, Mr. Church believes, are among the goals a manufacturer must not lose sight of for a single instant. A quality control laboratory keeps close check on production to make certain it meets all standards. And once a year, at least, Mr. Church gets out "to see what's going on in the trade," usually in company with a representative of J. P. Stevens & Co. This means trips to talk with customers in New York, Chicago and on the West Coast. Although these require a good deal of time, he considers them necessary in planning production for the next season.

Despite the inroads made by synthetics, Mr. Church firmly believes there always will be products which are "100 per cent cotton." Yet he warns that these must be fresh and beautiful, and always superior to the routine staples the industry was turning out in such volume when he entered it 30-odd years ago.

Not A Pessimist

Despite his concern over low profits and the other ills that continually beset the industry, Mr. Church doesn't consider that he is pessimistic in his outlook. He even finds that some problems sort of solve themselves. One problem he's convinced won't solve itself is that of taxation. Time seems only to aggravate it. The present tendency of all local governments seems to be toward increasing taxes. Mr. Church is firmly convinced that if city governments don't soon make a more realistic approach to assessments on textile mill property they will force another migration of the industry—this time to the country.

Transportation, which once dictated the erection of plants in urban centers, is no longer a problem. Other and newer industries have gone to the country for erection of plants, some of which are not even on railroad sidings. Now there is no longer any reason for building a manufacturing plant in a city. Few companies would even consider it. High taxes, building code requirements, high property values, to say nothing of such vexing problems as city traffic and parking facilities, all combine to rule out cities as sites for new industrial enterprises. "Established plants," he points out, "are paying a heavy penalty. Unless they can get some relief they are going to be forced to move. Cities which once wanted their payrolls now don't seem to care. They hunt new industries and forget the ones they have. When the migration gets started it is going to be hard to stop."

If this should ever come to pass—and it could, of course—no one would be less surprised than Tom Church.

Large Attendance Seen For Combed Yarn Meet

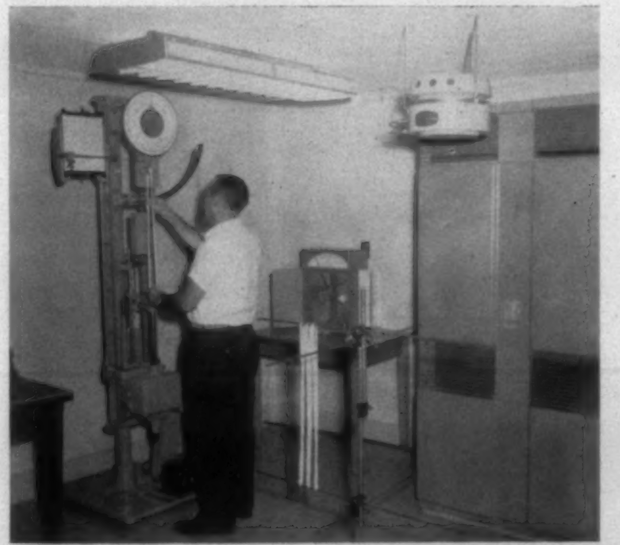
The largest attendance in the history of the organization is expected for the 32nd annual convention of the Combed Yarn Spinners Association, to be held Sept. 26-27 at the Cloister Hotel, Sea Island, Ga. Highlights of the two-day meeting include addresses by Rep. Basil L. Whitener of the 11th North Carolina Congressional District; Malcolm E. Campbell, dean of the School of Textiles at North Carolina State College, Raleigh, and William A. Newell, research co-ordinator at the N. C. School of Textiles. Rep. Whitener will speak on "Washington Activities," Dean Campbell and Mr. Newell will talk on textile research. Other events include the president's address by Ben R. Rudisill of Carlton Yarn Mills Inc., Cherryville, N. C.

Auburn has a new Testing Laboratory

A modern testing facility, devoted to both instructional purposes and research and development work, has been constructed in the textile building at Auburn. This article describes the laboratory and tells of some of the initial studies being undertaken.

THE expanding School of Textile Technology at Alabama Polytechnic Institute, Auburn, Ala., has recently completed the construction of a new testing laboratory. The new facility is located on the basement floor of the textile building and is comprised of the most advanced techniques and instruments for testing available in this field. The room is completely insulated and is carefully air conditioned to standard laboratory temperature and humidity conditions as prescribed by the American Society for Testing Materials. The walls of the room are made of plywood and the ceiling of sound-deadening fibreboard. The flooring is made of rubber tile squares which are waxed to a high polish.

A row of cabinets, constructed of plywood and topped with a smooth surface on the working area, runs along the entire length of one side of the room. These cabinets are used for storage of various types of small pieces of equipment and also to house samples of testing stock and records of tests. The working area on top of the cabinets is used for several pieces of smaller testing equipment including the Pressley fiber strength tester, Micronaire, C.S.I. Stoll abrasion tester and a complete Uster testing outfit consisting of the electronic tester, quadratic integrator and graph. A large Carrier Corp. air conditioning unit is installed in one end of the laboratory to keep the room at the proper temperature. Humidity for the area is supplied by a Walton Laboratories device installed near the ceiling directly in front of the air conditioning unit.



This corner of the Auburn laboratory is designed for the tensile strength and size determinations of yarns. Skeins are wound on an automatic skein winding machine and placed on a stand which is moved to the Scott Model-J strength tester. After the skein is broken, it is placed on the hook of an Alfred Suder yarn sizing quadrant. The Carrier Corp. air conditioner and the Walton Laboratories humidifier for maintenance of standard temperature and humidity conditions can be seen on the right.

The Uster evenness testing outfit is complete with the evenness tester, quadratic integrator and graph. To be installed later in conjunction with this equipment is the Uster Spectrograph.

One corner of the laboratory is used for tensile strength testing of yarn and the sizing of the yarns. A Scott Model-J skein strength tester is located in this corner. The test operator winds the skeins on a Fidelity automatic skein reel, and places them on a portable stand. The stand is then moved directly to the front of the skein strength tester. The test operator removes a skein from the stand, places it on the tester and starts the test. After the skein has broken, the operator places it on the hook of an Alfred Suder automatic yarn sizing quadrant. This yarn quadrant indicates the yarn count directly. However, the result is not read and recorded by the operator until he has placed another skein on the Scott tester. Results from the skein strength test and the sizing are recorded while the second skein is being broken. The cycle is then repeated. In this manner tests can be run in a minimum of time.

Another important piece of testing equipment in the laboratory is the black light. This instrument is used in determining color variations in fibers such as tar spots, dye differentials, honeydew spots, etc. The black light is located on a separate table which is placed so as to be free of crowded conditions. The test operator is thus assured adequate room for storage of samples as well as freedom from cramped conditions which are not conducive to accurate results on this instrument.

The Uster single yarn strength tester is located on a table adjacent to the black light installation. The strength tester measures both the strength and the elongation of the fiber. It is a fully automated piece of equipment having a

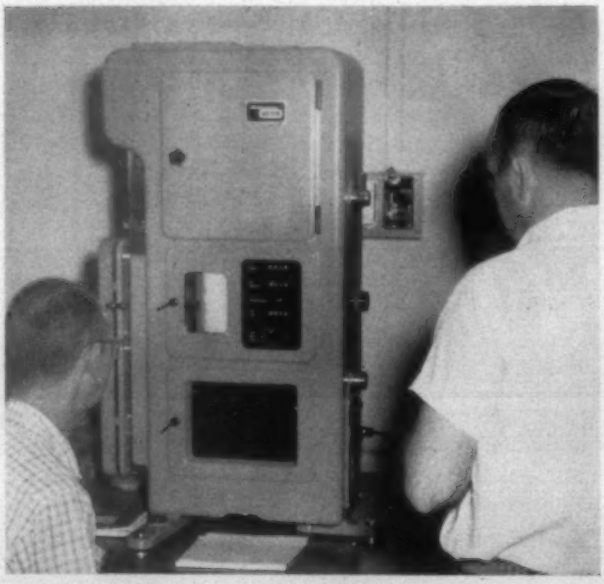
This over-all view of the new testing laboratory shows the Fidelity automatic skein machine to the right of the Uster equipment on the working surface of the storage cabinets. The walls of the new laboratory are of plywood; the floor is rubber tile.

dial setting for determining the number of breaks to be made on a bobbin of yarn. In addition, the instrument charts graphically the record of the breaks which are made. The frequency of the breaking strength determined by the instrument is shown visually. For each break of a given intensity, a small steel ball is dropped in an appropriate slot behind the glass viewer on the front of the instrument. The number of balls in each slot, at the end of the series of tests, indicates the breaking strength frequency.

Other equipment is to be installed in the new laboratory as soon as deliveries are made. Among this additional equipment is the Shirley Analyzer for determining the per cent of non-lint content in wastes and other applications. A Uster Spectrograph is to be installed in conjunction with the evenness tester. The Spectrograph shows the graphic spectrum of non-uniformity found in yarns tested on the evenness tester.

The primary purpose of the laboratory, outside of instructional uses for the students of the textile school, will be to conduct research work on fibers and yarns. This work is to be done in connection with the college's agricultural experiment station and private industrial concerns. A room adjacent to the laboratory is being fitted with yarn processing equipment. It will be air conditioned to standard conditions so that yarns to be evaluated may be made under identical conditions. The room will contain carding, roving and spinning equipment when installations are completed. A Roberts M-1 laboratory size spinning frame has already been installed in this area.

Yarns being tested in the laboratory at the time the photographs were made were manufactured from Auburn 56 cotton. This newly developed variety of cotton came from the agricultural experiment station at Auburn in 1956, hence the name. The samples being run are made from $1\frac{1}{16}$ inch middling stock. Another series of evaluations being run is a study of Plains cotton. The name for this new variety of cotton is derived from the fact that it was developed in the plains section of Alabama in Auburn, "the loveliest village on the plains."



The Uster single-strand yarn strength tester is a fully automated instrument for testing both the strength and elongation of the yarn. In addition to graphical recording of results, the tester shows visually the frequency of the intensity of the breaks by dropping small steel balls in appropriate slots behind a glassed-in area in the front of the cabinet.

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Highlights From An Historic Joint Conference

Fiber Society and the Institute of Manchester

get together at Boston

The Fiber Society and The Textile Institute of Manchester, England, held a historic joint meeting in Boston, Mass., at which some of the most distinguished textile scientists in the world delivered papers concerning the latest developments in research. This article contains resumes of important parts of papers concerning: high speed testing, engineered fabrics, reactive dyeing, fluid bed drying, wool treatment and the doom of the one-fiber mill.

THE first joint conference of the Fiber Society Inc. and The Textile Institute of Manchester (England) was held Sept. 4-6 at the Hotel Statler, Boston, Mass. The three-day program attracted distinguished participants in the scientific field from the U. S., Great Britain, Holland, Italy, Australia, China, Canada and several Latin American countries.

Geoffrey Loasby, director and technical manager, British Nylon Spinners Ltd., presided over the Sept. 4 morning session. Papers presented at this session included "Mechanical Breakdown In Textile Fibers," given by Dr. Bernard D. Coleman, research chemist, Mellon Institute, Pittsburgh, Pa., and "High Speed Tensile Testing of Fibers," by Dr. A. W. Ballou, research supervisor, textile fibers department, the Du Pont Co.

In his paper on the development of a theory of tensile strength, Dr. Coleman said that this work accounts for the time-dependence of mechanical breakdown phenomena. Describing this idea as the "theory of breaking kinetics," he pointed out that it has been applied to discussions of the creep failure of textile fibers under static loads, loads that increase linearly with time and oscillating loads. "The theory enables one to use tensile strength distribution data obtained under one loading history to predict completely the tensile strength distributions to be obtained under other loading histories," he said. Dr. Coleman added that the theory has also been applied to practical calculations of relationships between the strength of filament bundles and the strength of their constituent filaments.

High Speed Testing

Dr. Ballou discussed the principles of tensile tester design which are important to the construction of testers which operate at high speeds. High speed strains which he referred to include those encountered by sewing threads, tire cords, parachute shroud lines and safety ropes. He told the gathering of scientists that the research on tensile testing resulted in the construction of a relatively simple tester which would determine the high speed strength properties. The tester determines the strength or stiffness of a fiber when it is subjected to high rates of speed in the end-use applications mentioned previously. Dr. Ballou said that knowledge of the behavior of fibers "might lead to fibers having better high-speed properties, particularly in possible future synthetics."

The properties specifically referred to are those which lend assistance in the ability to resist deformation. He said that "we are saddled with present properties in natural fibers such as cotton and wool but this research might lead to the development of newer synthetics that have added properties of strength and ability to resist deformation."

H. L. Roder, N. V. Onderzoekingsinstituut Research, presented a paper on "The Evaluation Of The Spinning Properties Of Man-Made Staple Fibers," at the Sept. 4 afternoon session. In addition, at this session of the meeting, Dr. M. M. Platt, associate director and vice-president, Fabric Research Laboratories Inc., Dedham, Mass., delivered a paper on "Relationship Between Air Permeability and Structure Of Woven Fabrics," by himself, W. G. Klein, C. Lermond and C. C. Chu, all of Fabric Research.

Results Not Relative

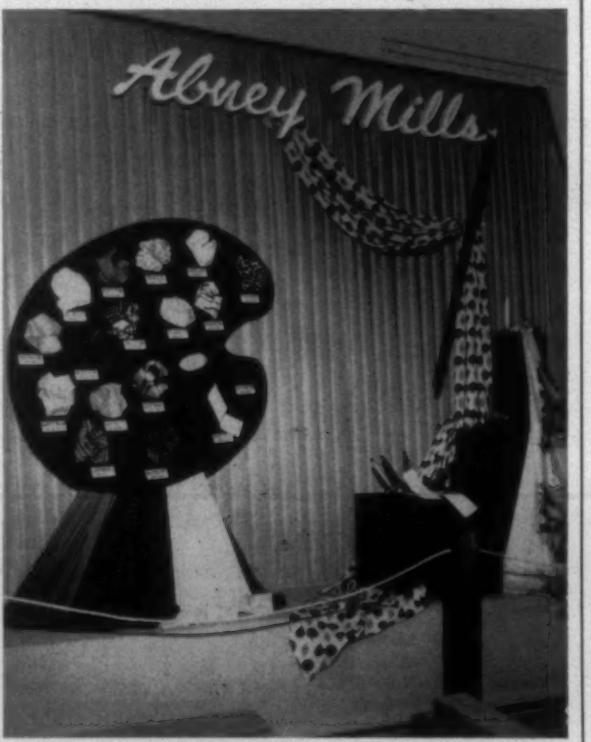
In his talk, Mr. Roder pointed out that people often thought it possible to evaluate spinning properties of man-made staple fibers by determination of the number of properties in individual fibers such as staple length, denier, crimp and frictional effects. However, it has been shown that knowledge of these properties is not sufficient to foretell the behavior of the fiber during spinning operations. He told the joint meeting that it is necessary to determine some properties of an assemblage of fibers, such as in slivers or roving.

"The most simple property in this respect is in the strength of slivers or roving. But this information is not sufficient, because more and better information may be gained from the determination of drafting forces," he said. He cautioned that in spinning man-made fibers, a low draft (1.2 to 1.8) should be avoided. This is true, he said, because at low draft, high values of drafting forces are found. The prevention of drafting forces had proved to result in greater evenness of yarns during spinning. He said that drafting forces are much larger on man-made fibers than on cotton or wool.

Engineered Parachute Cloth

In his paper, Dr. Platt revealed that current researches being performed to study the mechanics of air flow through parachute cloth offer promise for the eventual accurate engineering design of this cloth. The more stringent demands now put on parachute fabrics have focused attention on the need for a better understanding of how and why air passes through cloth, he said. New end-uses for parachutes such as acting as deceleration vehicles on jet aircraft have indicated that numerous factors formerly not important must be considered. Among these factors are the structural geometry of the cloth and its changes under high loadings; fabric aperture shape and flow characteristics; and the properties of air, as a fluid, flowing through cloth. He said that parameters must be developed to quantitatively describe the above and additional phenomena.

Traditional methods of studying parachute fabrics have been helpful but not sufficient to cope with modern end-use requirements for parachute fabrics. Dr. Platt described in detail techniques used for accurately studying air flow mechanics. These include microscopy for determining fabric pore structure; light penetrability techniques for determining pore area and deformation; and bi-axial stress-strain measurements for relating the deformation in the fabric to its basic structural geometry. He said that the high pressure permeometer, originally developed at Georgia Tech, has been adapted at Fabric Research Laboratories in these studies. Another new tester in use on parachute fabrics, he said, is the bi-axial stress-strain tester, which is a development of his company. This device measures the stress-strain relationships of fabrics while they are undergoing simultaneous stressing in two orthogonal directions. In parachute research the tester is used to relate deformation in the fabric under flow to the nature of the fiber and the structural geometry of the fabric.



ABNEY MILLS TOOK PART in the recent Farm and Home Week at Clemson College with this exhibit of samples of fabrics produced at each of the 17 Abney plants in South Carolina.

Reactive Dyeing

The new principal of making dyes that react chemically with the fiber to which they are applied was explained by Dr. Thomas Vickerstaff, chief colorist, dyestuffs division, Imperial Chemical Industries Ltd., Manchester, England, in a paper entitled, "Fast Dyes On Cellulose Fibers." He spoke at the morning session on the second day of the meeting. Dr. Vickerstaff pointed out that the latest developments in dyeing techniques include more efficient cold batch dyeing methods; a simplified, one-bath pad-steam process of continuous dyeing; a pad-bake application; new vat and white resist styles of printing; and a method of printing under Aniline Black. He said that the new fast colors for cellulose fibers were water soluble and contained a grouping which, under aqueous alkaline conditions, would react with the hydroxyl groups of cellulose to bind the dye to the fiber by a direct chemical linkage.

"Thus the dye becomes in effect part of the fiber," he said. "Dyeings of this kind are completely fast to solvents, including dry cleaning fluids and resistance to washing processes." This new method of attaching dyes to cellulose has many attractive features, according to Dr. Vickerstaff. It releases the dyestuff chemist from the necessity of making the dye molecules to a rigid pattern and makes available a wider variety of dye structure for coloring cellulose.

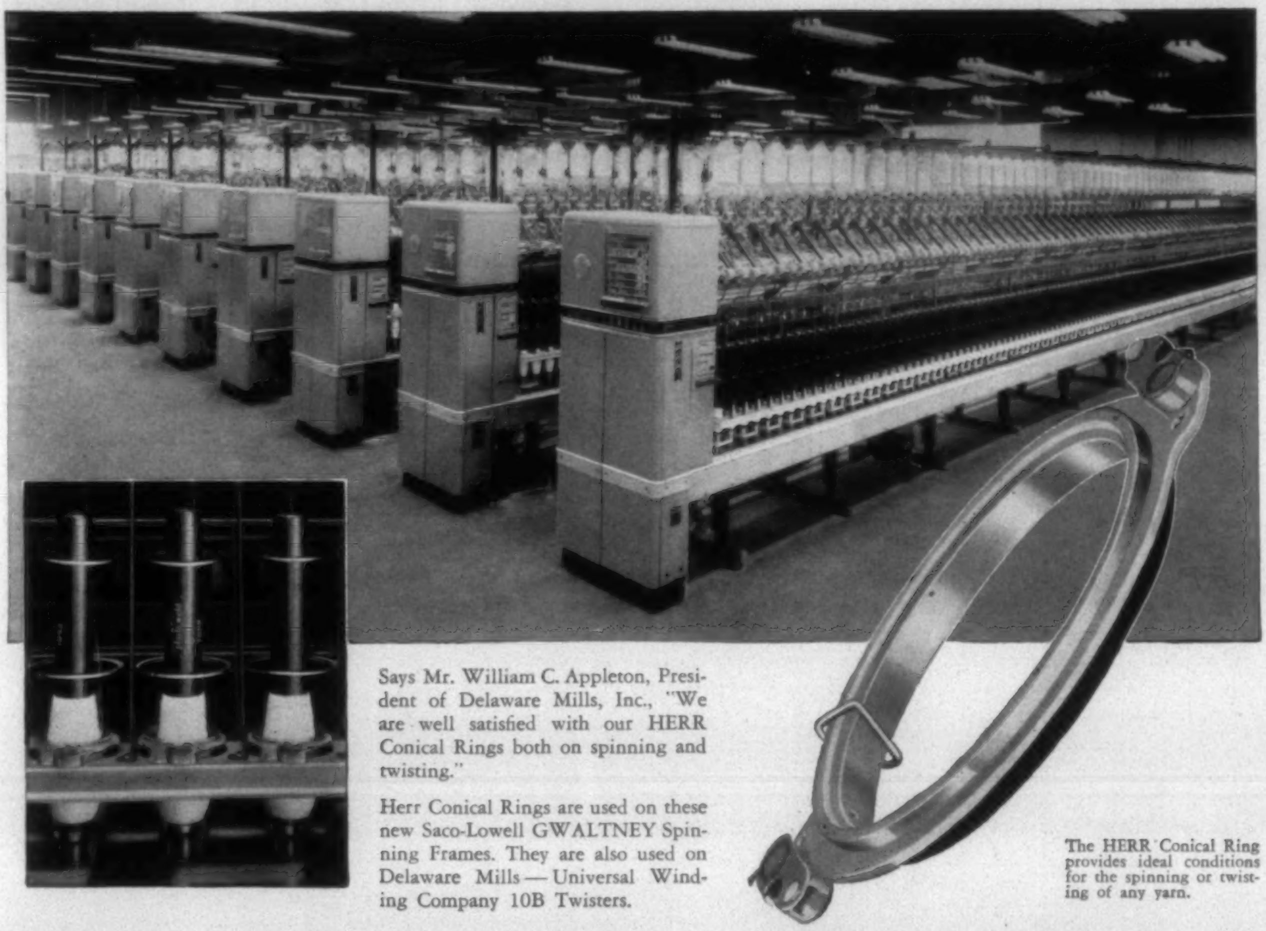
Other important factors brought out by Dr. Vickerstaff included the effect on possible dyeing methods the new dyes would have. "Dyeing may be carried out in the cold with a higher degree of levelness from fiber to fiber and better penetration into fibers than can be achieved in the same time with direct dyes at a temperature near the boil," he said. The dyes, which were first introduced in 1956 by Imperial Chemical as Procion dyes, are particularly suitable for application by continuous dyeing methods.

By modification of the reactive group, Dr. Vickerstaff said that it is possible to make Procions less reactive dyes which combine only at higher temperatures. Reactive dyes will also combine with amino groups, he said, and are capable, with limitations, of dyeing protein fibers. He concluded by saying that "The principle of reacting dyes with fibers opens up entirely new possibilities in both the synthesis of new dyes and application techniques which may well revolutionize the dyeing trade."

Technology Called Key

The long term health of the world's textile industry and the sensible distribution of its goods depends vitally upon the technological advance in fiber utilization in both man-made and natural materials, according to John Boulton, manager of Droylsden Research Laboratories, Courtaulds Ltd., Manchester, England. Mr. Boulton spoke at the banquet session of the joint conference. He stressed the urgent need for additional research into the best utilization of fibers. The object of this research would be development

DELAWARE MILLS



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of more new yarns and fabrics from existing fibrous polymers and the continued invention of high speed, precision processes in yarn and fabric making.

Speaking of problems found in fiber research, Mr. Boulton said, "every one of them requires its background of fiber physics, its application of chemistry and engineering and those overtones of inspired crystal-gazing which characterize the best researchers." Pointing out that the various technologies which make up fiber utilization are changing, the speaker said that if we are to keep pace we must be governed by two essentials: (1) the dissemination of advanced techniques of fiber handling, and (2) the provision of technologists with the scientific insight and the technological knowledge to make use of those techniques.

Speeds Dyeing

John Wilson, British Rayon Research Association, Manchester, told the conference that the development of fluid beds of glass beads to apply heat in dyeing, drying and heat-setting fabrics in a continuous process points the way to major economies in these processes. Savings are made in decreasing fabric processing time and reduced costs of operating equipment. The paper delivered by Mr. Wilson was co-authored by Fred Audras and was entitled "Textile Applications of Fluid Beds."

Mr. Wilson said that commercial machines were now being built for heat-setting nylon tire cord fabrics, drying of rubberized nylon tire cord and drying of latex backing on tufted carpets. He added that his company was just finishing a full-scale dryer for the continuous drying of fabrics without dimensional control.

While essentially new in the textile field, Mr. Wilson pointed out that the use of fluid beds in conveying heat has had long-time application in other fields. He said that the greatest problem was "how to put very delicate and wet fabric through a bed of some two tons of glass beads in turbulent motion." The solution to the problem has seen fabrics put through a six-foot deep bed containing two tons of glass beads, one-half millimeter in diameter, at the rate of 40 to 60 yards per minute.

The rate of heat transferal depends on two factors, according to Mr. Wilson. One of the factors is the size of the particles of glass in the bed and the other is the degree of fluidization of the beads. The smaller beads yield a better rate of heat transfer. Higher degrees of fluidization result in smaller rates of heat transfer. He said that the process could be used in resin baking as well as for drying wet fabrics. The normal method has been to impregnate fabric with resin, dry it at 90° C. and then bake it at a high temperature for two to three minutes. In the fluid bed process, however, drying wet fabrics and resin baking are achieved simultaneously in one operation. This is done in a matter of 20 seconds, he said.

Mr. Wilson said that Dacron, nylon and triacetate are hydrophobic and it is normally necessary to dye fabrics made of these fibers in pressure vessels in order to get the water to the right temperature. Moreover, the process must be done in batches and the whole operation may take three or four hours. However, he said, a fluid bed gives high temperature in an open vessel which is less expensive than a pressure vessel. In addition, the process in the fluid bed method may be carried out continuously instead of in batches. Another saving noted by the speaker is the substantial reduction in time for the operation. A drawback for the fluid bed process noted by Mr. Wilson is that while the method is applicable to disperse acetate dyes, azoic dyes and Procion dyes, it is not applicable to direct cotton dyes, vat dyes or premetallized dyes.

Mr. Wilson pointed out that one method used is the Thermosol process in which "the dye is dispersed in water to which five per cent glycerine is added, plus 0.2 per cent wetting agent. This is padded on to the fabric, which is immediately passed into a fluid bed. The time of immersion is about 20 seconds and the temperature of the bed is 195° C." Light, washing and rubbing fastness were found to be quite as good as could be obtained from conventional processes, he said.

Other uses for the fluid bed were noted to be in heat-setting nylon and Dacron, either in the yarn, fabric or finished goods. It was further pointed out by Mr. Wilson that singeing spun nylon could be done by immersion for a tenth of a second in the fluid bed at 440° C. After this treatment loose fibers are embrittled and come off clean.

One-Fiber Mill Gone

Prof. Edward R. Schwartz, Massachusetts Institute of Technology, told the joint conference of textile scientists that "we must get out of the textile Stone Age and recognize that the era of the one-fiber mill has passed." He said that the future of the textile industry lies in the multi-faceted use of fibers and using each one where it does the most good. His paper was entitled "Basic Actions As An Approach To Textile Fiber Processing."

Professor Schwartz asserted that "with the research progress that has been made, we are now in a position to think in terms of fibers and not just of one fiber." He further said that evaluations should be made on how effective our present methods are and development of new methods should be made by study of basic actions required to process fibers. He said that the researchers had been preoccupied too much with a particular fiber, existing machines, mechanisms and processes. "Our thinking," he said, "should be in terms of the material and its behavior." He said the researchers should have the necessary equipment developed around these ideas using the best available information from modern engineering methods. The modern engineering methods to which he referred include fluid mechanics, aerodynamics, thermodynamics and servo-mechanisms.

Wool Treatment

Another speaker on the agenda of the final session of the conference was Prof. J. B. Speakman, Leeds University, England, whose paper was entitled "Reactivity Of Keratin." Professor Speakman concerned himself with a method for altering properties of wool to commercial advantage through the use of resin finishes based on copolymerization with the fiber.

What Professor Speakman termed as "the easier and newer method" is the treatment of wool with compounds which combine the fiber and also polymerize to give an anchored synthetic resin inside the weakest part of the fiber structure. He likened this method to "filling up blowholes in a casting." The filling material is actually combined with the fiber. This chemical alteration gives wool a higher tenacity, resistance to shrinkage and wear and imparts easy-care properties, he said. This method may also be used to increase the life of industrial fabrics.

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Opening, Picking, Carding & Spinning

Ideal Industries further improves its *Feathertouch* drafting system

Drawing frame developments have quadrupled the operating speed of this equipment since 1948. This article tells of the improvements on changeovers and new frames made by Ideal Industries which has made front roll speeds of 900 r.p.m. not only possible but also practical.

IDEAL Industries Inc., Bessemer City, N. C., has reported a series of advancements raising the operating speed of drawing frames to some 350 to 400 feet per minute which amounts to quadrupling the 1948 standard speed of 90 to 100 feet per minute. All improvements are available for changeover on many frames now in operation as well as on new Ideal frames. The company, which was formed in 1948, now has over 15,000 deliveries of its Feathertouch drafting system in use. These deliveries are processing various stocks with staple lengths from $\frac{3}{4}$-inch to three inches.

The newly developed, almost vibrationless, frame has been undergoing tests under actual mill conditions for about six months at the Smyre Mfg. Co., Ranlo, N. C. The frame is operating at the rate of 365 feet per minute and is processing combed sliver. The mill reports that results are excellent. The sliver is made from $1\frac{1}{32}$-inch cotton and weighs 57 grains per yard. Tests run on the Uster evenness tester show nine per cent variation. The sliver's non-uniformity as shown by the Saco-Lowell tester is 12 per cent. A variation in grain weight of the sliver from all deliveries of less than 1.5 grains is reported. An improvement in tensile strength of the yarn has been noted. In addition, the yarn number variation is also improved. The front roll on this drawing frame is operating at the almost incredible speed of 900 r.p.m.

This sort of performance is not achieved by simply changing pulleys on existing machines to run them faster. It is the result of a very careful and deliberate series of steps in the development of improved drawing equipment. These steps have included the addition of the Feathertouch drafting system; redesigned ball bearing coiler system and coiler drive, and individual motor drive with electromagnetic clutch. These improvements are complemented by the more recently developed electric knock-off for spoons, trumpets, full can yardage counter and a vacuum cleaning system that replaces conventional bottom and top clearers. Different colored lights mounted in a box above the level of the frame's drafting element indicate to the frame tender which of the electrical circuits has stopped the frame. The full can yardage counter puts a predetermined number of yards into the can before indicating for the frame to be doffed.

Structural Improvements

Structural improvements noted in the new frame include the fact that all gearing is being made to closer tolerances. The bottom roll gearing is now pressed onto the rolls instead of being keyed in place. All draft gearing has been provided with double keyways and tension gearing is double-pinned. These precautions have been taken against the more rigid demands of the high speed at which the gearing will operate. In addition all ball bearing studs have double keys and rigid stop flanges.

Journal Bearing Design

Vibration is one of the greatest handicaps to high speed drafting with metallic rolls, according to Ideal's chief of engineering and production, Joe R. Whitehurst. He said that "it was decided to develop journal bearings that would do several things: (1) eliminate high frequency vibration; (2) remove the revolving collars used to space the depth of flutes and drive top rolls; and (3) eliminate frequent lubrication that would surely multiply the chances of grease from conventional journal's getting on the stock due to the

This four-delivery unit is operating at the Smyre Mfg. Co., Ranlo, N. C., at the speed of 365 feet per minute. It is processing 1-1/32-inch cotton comber stock and is delivering 57-grain sliver. Good results are reported for this frame which has been in operation for about six months.

increased heat generated at higher speeds." These ideas were the basis for the development work which Mr. Whitehurst has felt all along will net speeds of over 600 feet per minute on future drawing frames.

To accomplish the requirements for journal bearing design which had been set out, prelubricated and sealed ball bearing journals for both bottom and top rolls were designed. The new system uses the outer journal housings as collars or flute depth spacers. These journal housings do not revolve and this arrangement did away with revolving collars to drive top rolls. Naturally, it became necessary to drive the top rolls with the bottom roll flutes. This specific top roll driving idea became a vital phase of the development of the new drafting system.

The most obvious advantage of having stationary bearing housings is the regulation of depth of flute mesh to a highly accurate degree and the maintenance of the setting almost indefinitely. It also removes all vibration from the top rolls, this vibration being attributed to the revolving collar drive. The stationary bearing eliminates the wobbly or jumping top roll caused by flat places developing on the revolving bearing and change of depth of mesh due to wear of the revolving bearing.

Ball Bearing Coiler Drive

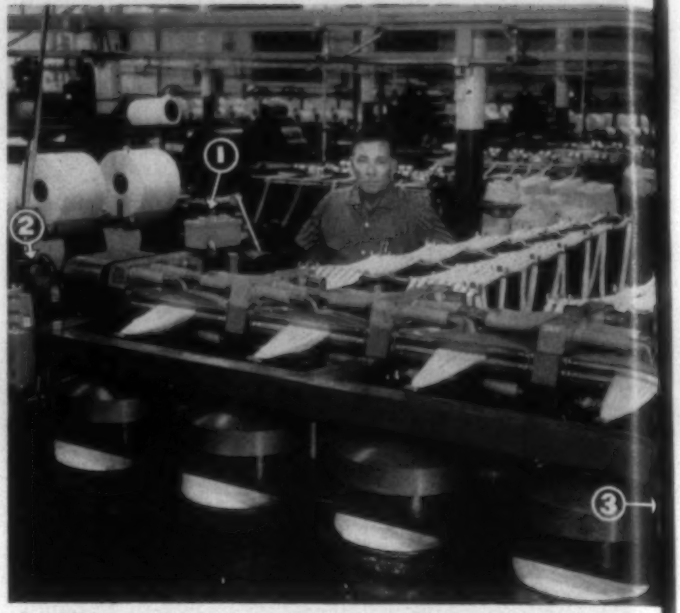
The new coiler on the high speed drawing frame was developed with a one-piece tube gear made of a static-resistant metal alloy. The new tube gear is heavier and is made with a greater degree of precision. It is supported by a grease-sealed ball bearing which relieves friction caused by the riding of the tube gear on the coiler plate. The heat and noise which was caused by this friction is also eliminated.

Another new problem found in high speed drawing is an excessive amount of heat generated by the sliver as the can becomes packed. An attendant problem is the buildup of static electricity as the can becomes packed. Both of these conditions are relieved by making the coiler plate, or spectacle, from fibreboard.

A further reduction in vibration is achieved by the suspending of a totally enclosed unit to drive the tube gear from the beam of the frame. The unit permits the machined steel bevel gears to run in a sealed reservoir of grease. This allows smoother operation and eliminates the frequent lubrication that is necessary on conventional bevel gear arrangements. The unit is firmly anchored to the beam by use of bolts and dowel pins. Completely accurate alignment of the drive shaft and tube gear to the driving spur gear is assured by use of the dowel pins. Removable connector sleeves between bevel gear units permits removing any unit separately. Other units or the remaining couplings are not disturbed.

Motor Drive With Magnetic Clutch

An individual motor drive with electro-magnetic clutch for each frame replaces all large diameter pulleys, countershafting and flat belting. These factors are all causes of vibration in one degree or another. The electro-magnetic clutch, operating through a rheostat, permits the frame to be started slowly without snatching or jerking of the drafting system's gearing. An electric knock-off, in conjunction with the clutch and double-acting relays, permits the back roll to stop immediately after one of the spoons signals that an end has come down. This action eliminates any singling due to an end passing into the drafting zone before the frame stops even when operating at very high speeds.



In addition to the vacuum cleaning system, Ideal's new frame is equipped with (1) a colored light indicator which tells at a glance which of the electrical circuits has stopped the frame; (2) a yardage counter designed to stop the frame after a predetermined number of yards has been delivered; and (3) pushbuttons operating an electro-magnetic clutch for starting, stopping or jogging the frame.

Vacuum Cleaning

Another problem which is created by increased drawing speeds is that of collection of the additional clearer wastes which accumulate on the rolls. If a frame is run four times as fast as it had been run previously, it is obvious that the collection of clearer waste will call for an improvement in cleaning methods. Ideal has devised a cleaning system which replaces top and bottom roll clearers and eliminates clearer picking and clearer slubs. The system utilizes individual roll hoods which encircle approximately one-third of the roll's circumference. A flexible coupling connects the hood, through ducts, to a collection box which is mounted underneath the frame. The hoods are supported by the roll bearing housings at each end of the roll. A mechanical seal is created between the roll and the hood, across the face of the roll, by a clearance of 0.005 inches between the hood and the roll flutes.

Air is sucked into the hood through the open space at the junction of the roll and the bearing. Since the air moves up the flute, from the ends toward the center, the necessity for having a wiper is eliminated. A vacuum pressure amounting to 2.5 inches of water column is exerted on the flutes at this point. Clearer waste is thus forced along the flute toward the center of the roll and lifted up into the exhaust duct. The air passing over the roll also serves to keep the rolls and bearing cool during high speed drafting. Heat generated in the drafting zones when the unit is operating from 350 to 600 feet per minute increases tremendously.

Bottom roll hoods are held in place by plungers which are set in the roll slides. If it is desired to change the roll settings, these slides are moved. In this manner, the hoods are also moved to wherever the rolls are set. A good tight fit is always assured. Similarly to the top roll hoods, the bottom roll hoods are mechanically sealed to the bottom rolls. The setting is 0.005 inches and the vacuum pressure is the same as for the top roll hoods. The system incorporates transparent view windows which allow the exhaust tubes to be observed.

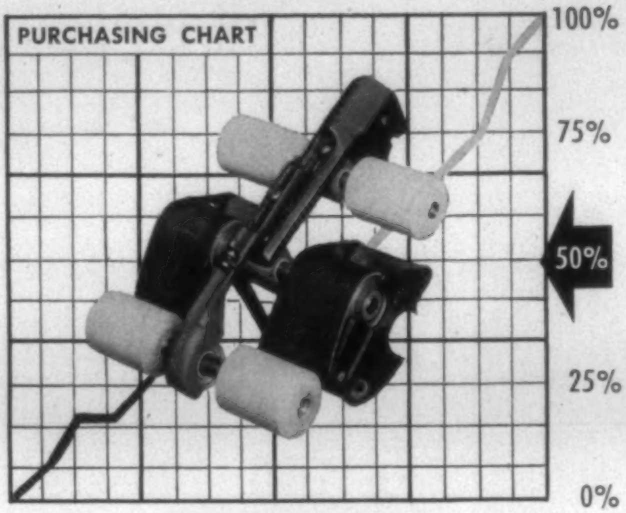
Exhaust from the collection unit is directed toward the metal contact bars of the electric knock-off system. This constant cleaning action helps to assure the spoons making speedy contact when a stop is indicated. A similar exhaust utilization system is being developed which directs air toward the top of the roll hoods. This stream of air keeps the hoods free of lint at all times.

Inner Draft Distributions

The inner draft distribution in the new high speed frame has been the subject of hundreds of tests conducted by Ideal. Drafts between the first and second rolls for four roll combinations, and for all kinds of staple, blends and amounts of total draft, were determined to be the square root of the total draft desired. The draft between the third and fourth rolls should be the square root of 2.5 per cent of the total draft plus one. If the total draft desired is six, the draft between the first and second rolls is equal to the square root of six which is 2.45. The draft between the third and fourth rolls is the square root of 2.5 per cent of six, which is 0.38, plus one. The sum of these two numbers is, of course, 1.38. The draft between the second and the third rolls is found by multiplying 1.38 by 2.45 and dividing the result into six, which is the total draft.

A new type of flute, which is much thinner at the meshing depth than conventional flutes, is incorporated on the frame. The stock is permitted to pass between bottom and top roll flutes without undue pressure from the weighting system. The new type of flute is much longer than conventional flutes. This factor aids in maintaining more accurate alignment of rolls and prevention of bunching or overlapping of the slivers being fed into the drafting zone. In addition, the longer flutes allow the frame to accommodate laps.

Mr. Whitehurst points out that in the Feathertouch drafting system, the floating top roll advantages are used only for the first and second lines of rolls from the delivery side of the frame. This is true because the stock, or web, has been drafted until it is very thin just prior to entering the second line of rolls. The third and fourth lines of rolls are used to even out thick and thin places in the sliver entering the system. The top roll on the fourth line of rolls rides the stock and will not damage the fibers, due to the thickness of the mass. The instant the mass of slivers passing through these rolls increases in thickness, the top roll raises up. This action decreases the depth of flute mesh of both the top and bottom rolls. The effective diameter of the rolls is thus decreased and a shorter length of stock passes between these rolls. Obviously, the draft between the third and fourth rolls is thereby increased. This increase in draft removes the thick places in the stock. Thin places are remedied in the same manner, except in reverse, with the meshing depth and effective diameter of the rolls



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Dixon's complete self-aligning Super Saddle Guide assembly costs much less than any competing roll weighting device. It entirely eliminates oiling and yarn wrapping — greatly reduces cleaning, yarn soiling, picking, other spoilage. These savings and advantages, plus a great reduction in drafting power consumption, make Dixon Saddles pay for themselves quickly — often, in less than two years.

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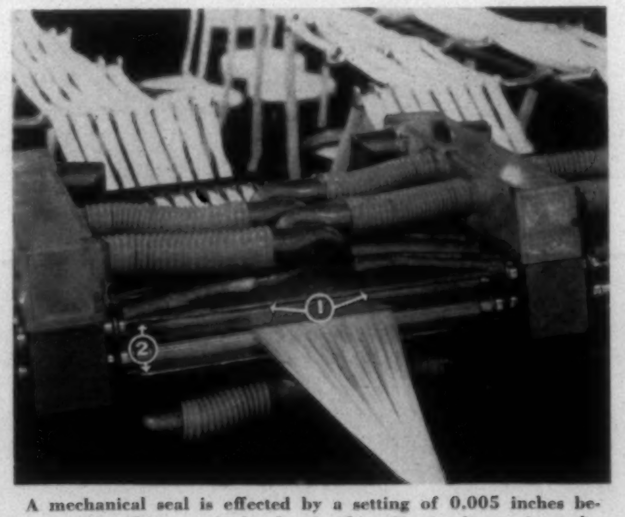
A long flexible hose may be plugged in to the vacuum box and used to clean lint from the frame. The hose has a metal snout and its use is similar to a home vacuum cleaner.

increasing when a thin place passes. This increase causes a lowering of the draft.

Control of varying fiber lengths is accomplished by the crimp put in the stock by the special design of flutes and the floating top roll arrangement. These crimped places are noticeable on staple lengths of one-half inch and longer. A large percentage of lint with a staple length of one-eighth inch is also crimped. Mr. Whitehurst believes that this crimp is put in the stock because of "the pull on the fibers at the time they are bent around the flutes plus the pressure of the bottom roll flutes revolving the top roll." This action is similar to folding a piece of paper over the edge of a table and applying pressure with the fingers to set the bend. The crimp left in the stock is important because of the strength it imparts to the sliver. Crimp, especially in combed stock and light slivers, almost eliminates splitbacks of the sliver. These splitbacks cause thick and thin places in the roving and yarn made from the sliver.

Electric Stop Motion

The electric stop motion retains the use of spoons as in conventional mechanical systems. This is done to assure that doublings or singlings will not be made. The spoon is held away from a contact bar by the weight of the sliver. When the sliver is broken back the spoon falls to the bar



A mechanical seal is effected by a setting of 0.005 inches between the flutes and the hood (1). Air is drawn into the vacuum system at the junction of the roll and the roll bearing (2). Lint is removed through flexible connections and ducts to a collection box mounted underneath the frame.

and completes an electrical circuit which stops the frame instantly. The trumpet knock-off motion works in a similar manner with its trip touching a contact bar when the sliver is not passing through the trumpet properly.

The compact electrical control box is located under the frame and is mounted on the foot-end sampson. This box is well designed and contains inlet and outlet terminals, rheostat for control of the action of the magnetic clutch, double action relays for each of the four electrical knock-off circuits, and a transformer and magnetic switch for the clutch. The door to the box is big and swings on a hinge which facilitates electrical repair work which may be necessary from time to time.

Increased Roll Speeds

The increase of roll speeds has been the primary objective of the development work on the new drawing frames. A major factor in this work has been the reduction of vibration everywhere on the frame. The fiberboard spectacles have been made wider to accommodate cans from 12 to 16 inches in diameter. The wide spectacle also prevents sliver from spilling out the top of the can as it runs full at high speeds.

Inspection of the inside of the gear covers on the frame operating at Smyre reveals that the small amount of entrapped lint is bone dry. There is no heavy sludge of grease that might get on the stock and stain it. This is due, of course, to the fact that the fibre gears used in the head end do not require lubrication. A long flexible hose which has a metal snout may be plugged into the vacuum box and used to clean lint from the frame. This useful attachment, like every one of the other advancements mentioned as part of the changeover, is also available on the new frames Ideal is producing.

Spinning Modernization at Avondale's Birmingham Plant

This article about the spinning operation at Avondale Mills' Birmingham Plant tells not only about the modernization of the equipment but also of the rearrangement of the frames to allow wider alleys so that overhead cleaners could be used. In addition, the flooring was completely renovated. All this was accomplished while keeping an adequate supply of yarn moving to the weaving department.

THE products of Avondale Mills' Birmingham (Ala.) Plant include fine combed woven checks, plaids, dobby fabrics, cords and chambrays. The high quality of these products requires that the fabrics be woven of superior yarns. The plant's spinning room has been the object of an intensive modernization program in recent months. The yarns spun in this room are 40s warp and filling. Before the modernization, these yarns were spun on Fales & Jenks frames from 3.30 hank roving. The improvement program for the spinning machinery consisted of changing over the drafting element to the Roberts system, and the installation of overhead cleaners, open creels and vacuum waste collectors.

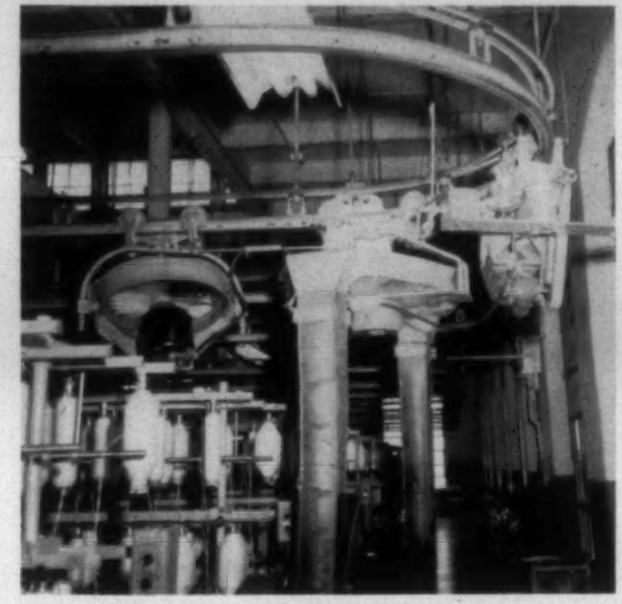
Cleaners, Creels & Collectors

The traveling cleaners are fitted with snouts which cause the air to be distributed over all the vital areas on the frame. In addition, a ceiling cleaner trails the frame cleaner around the overhead track. This continuous cleaning of the ceiling eliminates blowing down. The equipment was made by American MonoRail Co. Manual cleaning of frames has been reduced to brushing rails twice in 24 hours. Rolls are picked at four-to-six-week intervals.

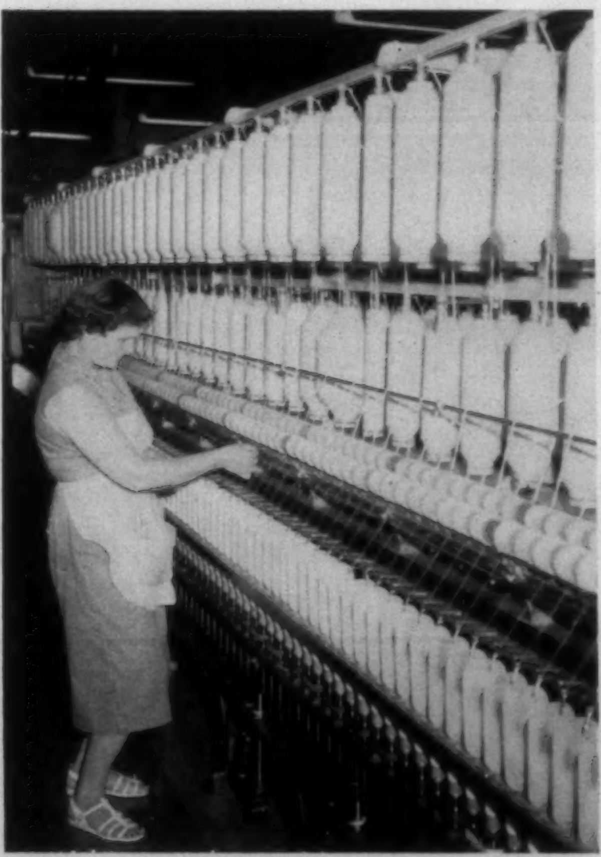
Open creels and the vacuum waste collection system installed on the modernized spinning frames are made by the Bahnson Co. The spinners creel from buggies which are made of steel framework and sheet metal siding. The buggies have a spring-type false bottom which keeps the roving at a convenient level at all times. Roving is brought to the spinning room from the card room in conventional boxes and placed at various stations. The spinner loads the creeling buggy as roving is needed.

The entire spinning room has been rearranged in order to allow wider spinner's alleys. This wider alley was necessary due to the location of posts around the room. Pre-

At the Birmingham plant, spinners creel from buggies sturdily made of steel framing and sheet metal. Each buggy has a spring action false bottom which keeps the roving at a convenient level at all times. The roving is brought from the card room in conventional boxes which are placed at various stations in the spinning room. The spinner loads the creeling buggy as more roving is needed. The snout of a traveling cleaner may be seen in this photograph to the right of the spinner.



The traveling frame and overhead cleaner shown here is a product of the American MonoRail Co. Manual cleaning of the frames has been reduced to brushing the rails at 24-hour intervals. The overhead cleaning fan trails the frame cleaner. The rolls on the spinning frames are picked at four-to-six-week intervals.



This frame is running with the Roberts changeover; anti-friction spindles, head-end and compound; and lowered spindle rail to allow for greater traverse. The frame is spinning 40s yarn from 1.00 hank roving with a twist multiple of 3.90. The roving packages are 12x6½ inches. The front roll speed is 150 r.p.m.; the spindle speed, 11,700 r.p.m.

viously the frames were so arranged that it would not be possible to utilize the traveling cleaners, the posts being too close to the sides of the spinning frame. The frames were realigned and while this was being done the entire spinning room floor was refinished.

The old flooring was torn out and replaced with new hardwood strips. This new surface was sanded and treated with a smooth, tough finish. This operation was completed without interrupting the flow of stock to the weave room. The new surface not only has a much better appearance but also makes for much easier movement of boxes and creeling buggies.

This instrument is used to determine the per cent relative humidity in the spinning room. A battery supplies the current necessary to drive a fan which blows a constant stream of air on the wet and dry thermometers located on the top center of the buggy. The operator takes three readings at the spinning frame to determine the consistency of the level of relative humidity. His readings are recorded on the board mounted directly in front of him.

The housekeeping is excellent in this spinning room. This fact is attested to by the record of over 188,000 man-hours of operation since the last lost-time accident in the department. Attractive working conditions and a splendid job layout have certainly aided in making this record possible.

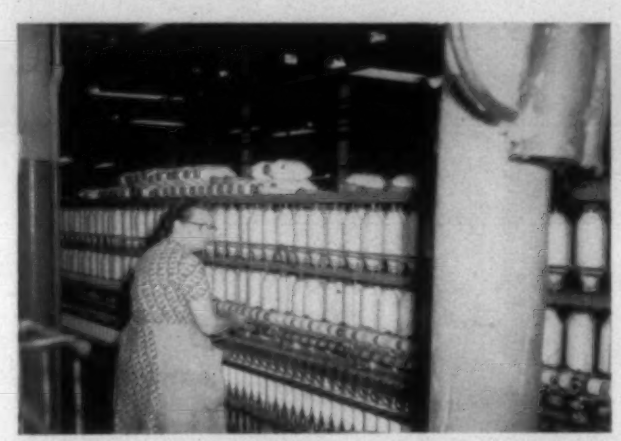
Air-Change System

The entire spinning room area is under ducts which comprise the air-change system operated in this mill. All the air in the room is changed at frequent intervals. The air is washed and returned to the room. The purpose of this system is to maintain a level of 50 per cent relative humidity in the spinning room.

An instrument mounted on a castered framework is used for quick and accurate humidity determinations throughout the room. A battery operated fan keeps a constant stream of air blowing on the wet and dry bulbs on the thermometers mounted on the top of the framework. The operator pushes the instrument from location to location in the area, making temperature readings. He notes the thermometer readings on a board also mounted on the framework. Three readings are made at each frame. One reading is made at the head-end, one in the middle and one at the foot-end of the frame. The readings are later converted into terms of per cent relative humidity. The consistency of level of humidity is found using the three-reading method.

Additional Information

Eighteen frames in this spinning room are running with 12x6½-inch roving bobbins. The remaining 86 frames operate with 9x4½-inch roving bobbins. All spinning frames in the room have an eight-inch traverse. The 40s warp and filling have the same twist multiple, 3.90, and are made from 1.00 hank roving (12x6½) and 1.40 hank roving (9x4½). The stock is combed strict middling cotton with a staple length of 1⅛ inches.



Before the modernization program, the spinning frames had this appearance. The yarns made were 40s with small roving packages mounted in wooden creels with conventional skewers. Posts in some of the alleys prevented the incorporation of overhead cleaners. The yarns were made of 3.30 hank roving with a draft of only about 12.

Each day, one spinner is required to mark the spindles on which ends come down. When an end has come down more than three times the spindle is flagged for the fixer. This process continues on each job for 24 hours. Better maintenance is the aim of this procedure which aids in finding the spindles which are not running at best efficiency.

The plant is operating one Fales & Jenks frame on an experimental basis spinning 40s yarn with a front roll speed of 150 r.p.m. and a twist multiple of 3.90. This frame is modified with the Roberts changeover, and has anti-friction spindles, head-end and compound. The yarn is being spun from 1.00 hank roving and the spindle speed on the frame is 11,700 r.p.m. This frame, like all the others in the room, has open creels, vacuum waste collection and overhead frame cleaning.

Fall Session Starts At Vocational School

New classes started at the North Carolina Vocational Textile School, Belmont, N. C., Sept. 3. Classes run from 8:20 a. m. to 1:00 p. m. and 3:00 p. m. to 6:30 p. m. The classes in mill maintenance (machine shop) are also taught from 5:00 p. m. to 9:30 p. m. The school offers the student the opportunity to work a full shift on his job and then learn the technical aspects on his own time.

The cost of attendance at the school is very small. It is a state institution and a resident of North Carolina who attends as a non-veteran does not have to pay any tuition. The only cost is for the books which amounts to $13 to $19, depending upon the course. Five courses are offered at the school: yarn manufacturing, weaving and designing, knitting, mill maintenance and tailoring.

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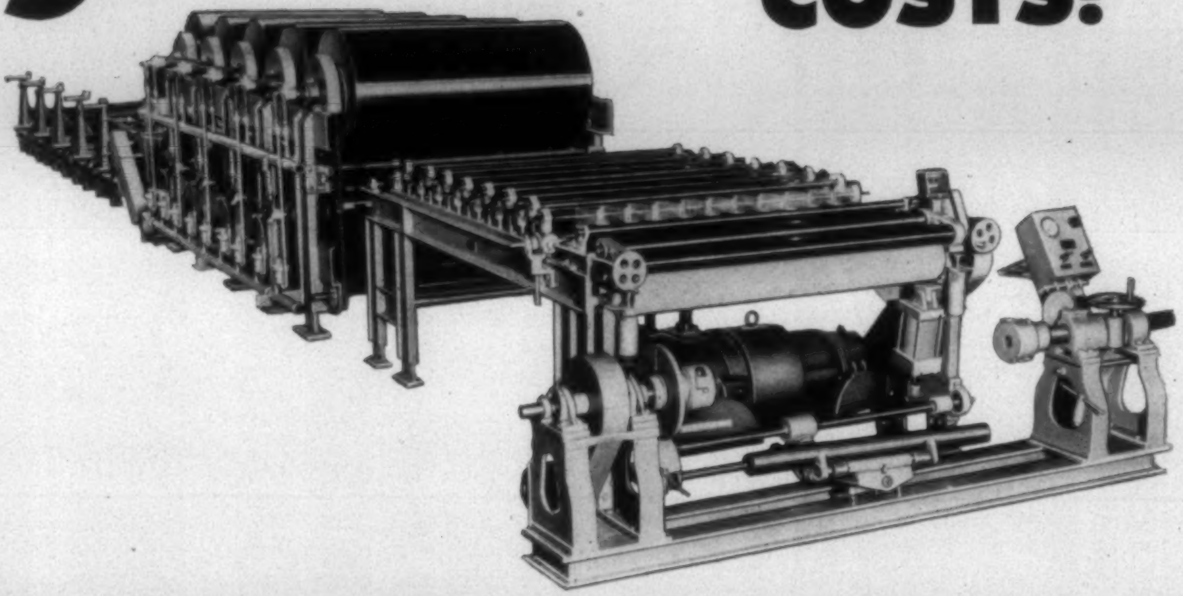

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Warp Preparation & Weaving

A Study in Loom Fixing

By **FRANK D. HERRING** (Part Fifteen)

A MISPICK in a woven fabric is caused by the shuttle passing through or between the warp sheds and failing to lay a strand of filling across the cloth from selvage to selvage. Two things can cause mispicks. One is when the filling strand becomes broken while the loom is running. The other cause of mispicks occurs when the filling feeler fails to function properly and allows all the filling yarn to run out of the bobbin in the shuttle before the transfer.

A mispick, in reality, is the beginning of a thin place. When the filling yarn breaks while the loom is running and the filling and shipper motions function properly to stop the loom off, only a mispick in the cloth will result. However, if the filling and shipper motions fail to function the loom will continue to run and a thin place will be made. Although the basic causes of mispicks and thin places are the same—filling breakage while the loom is in operation—the routine checks necessary for the fixer to make in order to locate these causes will differ. This is true because more parts are involved when thin places are made.

Check For Mispicks

When the loom fixer is called to work on a loom for making mispicks, he should check the following items in the order named: (1) shuttle; (2) rocker shaft; (3) crank arms; (4) picker on shipper end; (5) shuttle boxing; (6) filling feeler blade; (7) lifting lever connecting rod; (8) lifting lever; (9) filling cam follower trip; (10) shuttle feeler; and (11) transfer mechanism. When checking the shuttle, the fixer should first determine if the bobbin in the shuttle is pointing straight and held rigidly in place by the shuttle spring. If the bobbin is not straight and tight it is not possible to place the bristles, or frictions, in place properly. The bristles should be properly positioned and in sufficient number to control the ballooning action of the strand of filling while the loom is running. If the ballooning action of the filling yarn is not controlled the yarn will sluff off when the shuttle comes to an abrupt stop in the battery end of the loom. The sluffed yarn will choke up the shuttle eye or cause the shuttle eye to become entirely unthreaded and cause the filling to be broken.

Due to the different sizes and characteristics of filling yarns, there is no fixed rule that can be suggested that will work at all weaving mills. It is a problem that must be studied and worked out at each individual mill to comply with local conditions. One thing to bear in mind is that sufficient bristles, or frictions, must be put in the shuttle to control the exaggerated ballooning and piling off actions of the filling yarn during all times the loom is in operation. Another factor which helps to determine local conditions is the speed of the looms—a higher operating speed will naturally require more bristles.

Rocker Shaft Bearings

Check the rocker shaft and rocker shaft bearings. If they are excessively worn the lay will be allowed to rise up out of position when on front center. This will cause the filling feeler blade to bind against the shuttle wall retarding the action of the blade and preventing the proper contact from being made. This causes the filling yarn to be depleted from the bobbin before transfer is made.

The crank arms should be checked because excessive lost motion will sometimes interfere with the orderly actions of the filling feeler blade and may also cause the shuttle to fail to box properly, also interfering with the actions of the feeler blade. If the picker on the shipper end is out of parallel, too high or too low, the shuttle may be thrown out of position in the box. This will interfere with the action of the feeler blade by allowing it to contact the wall of the shuttle.

Boxing Shuttle

Check the shuttle boxing in both ends of the loom. If the shuttle fails to box properly in the shipper end it will interfere with the action of the feeler blade and prevent it from functioning properly. If the shuttle fails to go all the way up in the shuttle box on the shipper end, or if it goes up and rebounds, it causes the feeler blade to make contact with the front wall of the shuttle. If the shuttle fails to box properly in the battery end it will usually affect the boxing in the opposite box.

Check the filling feeler blade and adjust the filling feeler bracket, if needed, so that the blade tip enters the exact center of the slot in the shuttle as the lay moves toward front center. If the feeler tip enters the slot in the shuttle too high or too low it causes the blade to bind against the front wall of the shuttle and will retard the action of the blade.

Check the lifting lever connecting rod to determine if it is properly adjusted in relation to the feeler blade and the lifting lever. With an empty bobbin in the shuttle, turn the lay to front center and check to see that the filling feeler guide is adjusted so as to give the correct setting to the blade. With the lay in this position the adjustment should be made to allow $\frac{1}{16}$-inch play, right to left, between the feeler blade and the empty bobbin. Turn the lay back to bottom center and check the lifting lever in relation to the filling cam follower trip. This setting is made by moving the lay from bottom center, very slowly, and watching to see if the lifting lever is lifting at the proper time to make contact with the filling cam follower trip. The proper operation of these two parts requires exact setting and split second timing. If the setting is not correct the lifting lever and the cam follower trip will fail to make proper contact causing the filling to be depleted from the bobbin before a transfer is made.

With the lifting lever and the filling cam follower trip in contact, turn the crank shaft one complete revolution. This will place the shuttle in the battery end of the loom with the shuttle feeler raised into position indicating a transfer. Move the lay towards front center until the bunter makes contact with the latch finger. Be sure the latch finger is adjusted high enough to make proper contact with the bunter. If this is not the case the transfer of the bobbin will be revoked occasionally sometimes causing the filling to run out before a transfer is made. After adjustment is made on the latch finger, if needed, move the lay to front center. This movement should transfer a new bobbin from the battery into the shuttle ejecting the old bobbin from the shuttle. Make sure that this transfer is made in an orderly manner and all parts of the transfer mechanism are properly adjusted.

Thin Places

Thin places are made in cloth after the filling yarn breaks and the filling fork mechanism fails to function properly and stop the loom off. When the loom fixer is called to work on a loom making thin places in the cloth, he should check the following things in the order named: (1) shuttle; (2) rocker shaft; (3) crank arms; (4) lay guide; (5) sword bolts; (6) shuttle boxing; (7) filling fork grate; (8) filling fork prongs; (9) filling motion stand; (10) timing on filling cam; (11) stroke on cam follower; (12) filling motion trip; (13) straddle bug; (14) filling motion shipper arm; (15) filling motion shipper; and (16) transfer mechanism. The shuttle, rocker shaft, and crank arms have already been covered under the heading of mispicks, because they all have to do with filling breakage, this condition being the starting of a thin place.

If the lay guide is excessively worn or loose it will allow the lay to sway from right to left while the loom is in operation and this will prevent the filling fork prongs from entering the slots in the filling fork grate. Check the sword bolts, the two large bolts extending through the lay and the top of both swords. If one, or both of these bolts are loose it will throw the filling fork grate out of line with the filling fork prongs preventing the loom from being stopped off when the filling breaks.

Proper boxing of the shuttle is vitally important for numerous reasons. If the loom fixer will give close and regular attention to this phase of his work, he will not have a great deal of difficulty taking care of a section of looms. If the shuttle is not boxing properly it will increase the sluffing off of the filling yarn. Filling sluffing will increase filling breakage and the chances for making thin places. Excessive power on the pick (regulating the power on the pick is considered a part of shuttle boxing) will give the shuttle a tendency to rise as it travels across the lay. If it rises when entering the shuttle box the strand of filling will sometimes be caught and pinched between the top of the shuttle and the box plate. This will cut the filling and create another chance for making a thin place.

Filling Fork Grate

Check the filling fork grate and make sure it is tight and properly adjusted. The filling fork grate is attached to the back box plate and the fixer should always check to determine if the box plate is tight before making any adjustments on the grate. Turn the lay to front center and check the filling fork prongs making sure they are in alignment with the slots in the grate. This is a very important and close setting. If the prongs strike the grate while the loom is in operation it will continue to run after the filling has been broken.

The filling fork strand should be adjusted to a point where it will rest at exactly right angles with the lay and be positioned so that the fork prongs will pass through the center of the slots in the filling fork grate. After the filling motion stand has been correctly positioned, the filling cam should be loosened and turned to a point where the filling cam follower rests on the highest point of the cam. Adjustment should then be made to place the filling cam follower dog back so that it will just clear the end of the filling motion trip, without binding. After this is done the fixer should turn the lay to front center and time the filling cam. Tightening the part securely is a most important phase of the work.

The Filling Motion

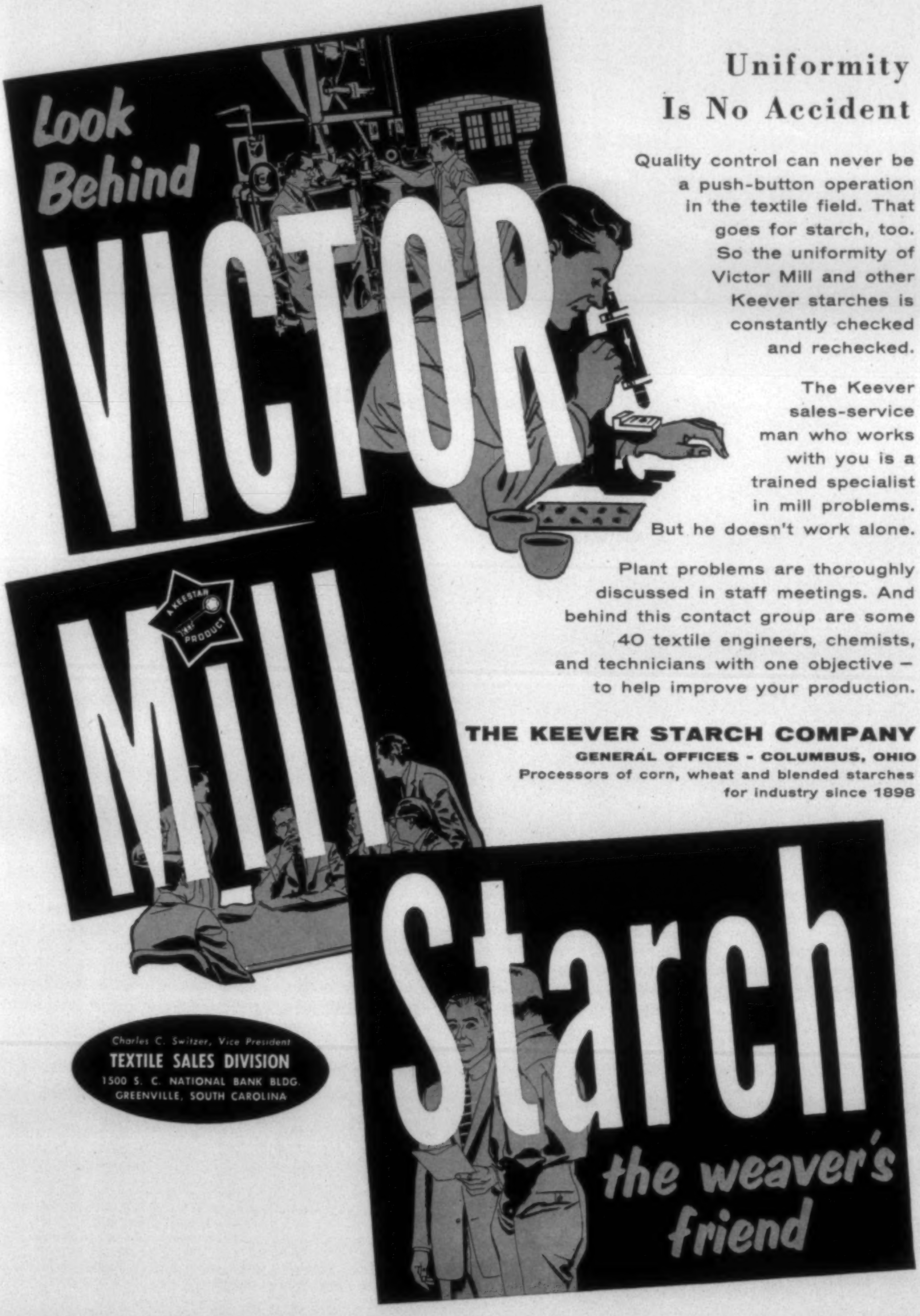
The filling motion trip should make proper contact with the straddle bug and the filling motion shipper arm to stop the loom off when a filling breaks.

The filling motion shipper arm, the filling motion shipper and the straddle bug must be properly adjusted to work in relation with each other and release the shipper handle from running position when the filling breaks. Turn the lay to place the shuttle in the battery end of the loom, with the transfer mechanism indicating a transfer, and carefully check the entire battery transfer mechanism.

It will seem to some that these lists of parts for the fixer to check is too long but every item mentioned can, and does, cause or contribute to the making of the defects under discussion. If all the parts listed are in good condition, it only requires a few seconds to make the check. If they are not in good condition they should be given attention and the sooner the better. The loom fixers who get the best results from their sections are the ones who do a lot of checking over their looms every time they are called to work on them.

Textile Hall May Be Expanded Before '58 Show

Plans for adding about 13,000 square feet to Textile Hall, Greenville, S. C., before the 1958 Southern Textile Exposition are under consideration by the hall's executive committee. Tentative applications for space at the Oct. 6-10 show indicate the additional space will be needed to take care of exhibitors. The proposed addition would bring total space in Textile Hall and its annex to 104,000 square feet. The prospectus for the 20th Exposition is being mailed to some 700 former exhibitors and other interested firms.



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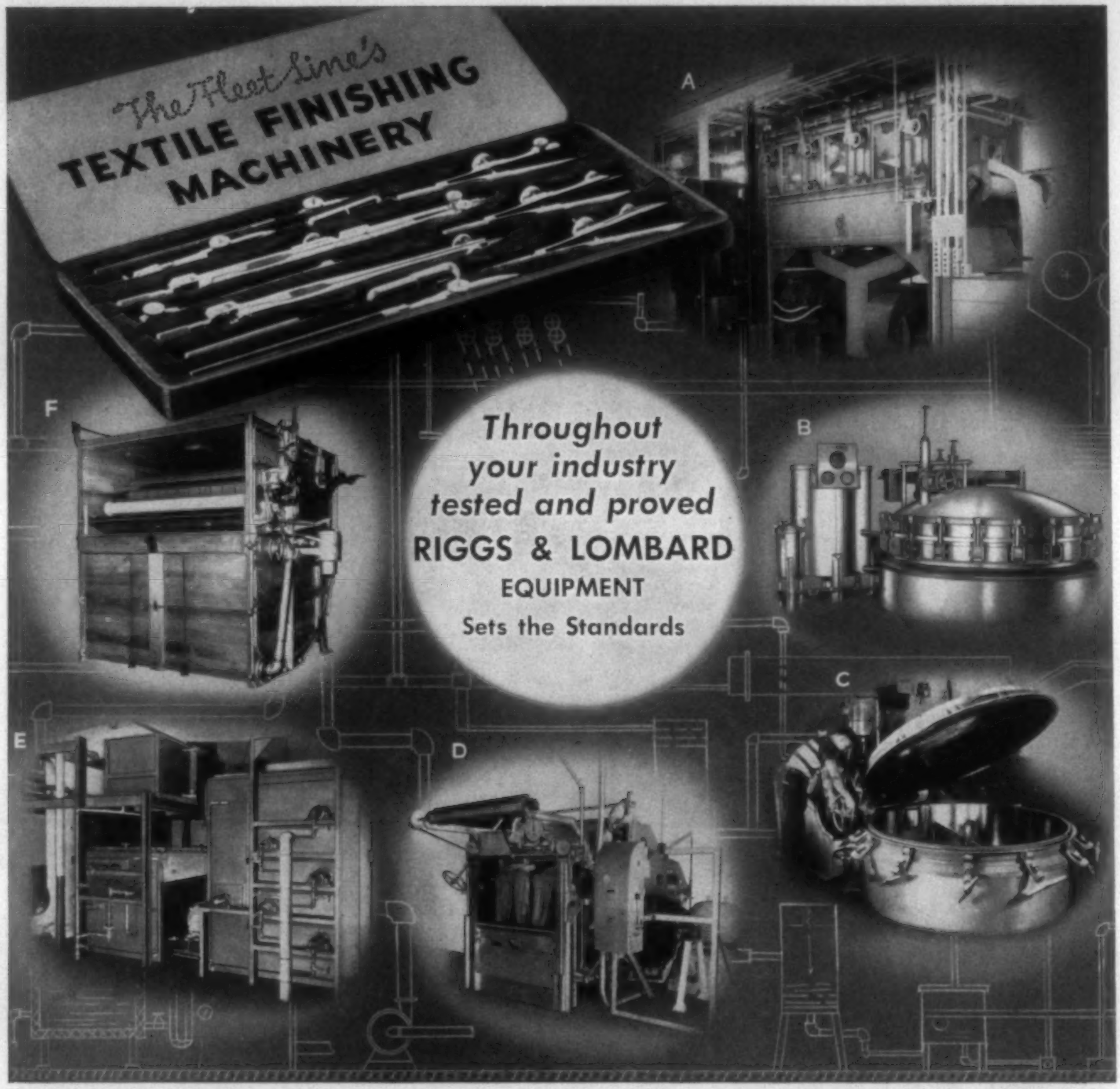
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Bleaching, Dyeing & Finishing

Zefran, Dow's New Synthetic Fiber, Offers Unusual Dyeing Versatility

This article, extracted from a paper delivered before the Sept. 11 meeting of the American Association For Textile Technology, describes the dyeing properties of The Dow Chemical Co.'s new textile fiber. Physical properties, minimum care qualities and processing characteristics are also briefly recounted. The author of this paper was O. R. McIntire, technical director of Dow's textile fibers department.

ZEFRAN, The Dow Chemical Co.'s new textile fiber, offers unusual processing and dyeing versatility. The new fiber is described as a nitrile alloy that has been specifically tailored to fit into conventional textile manufacturing and dyeing operations used for natural fibers. Generally speaking two methods are available to obtain dyeability in synthetic fibers. One method is to modify dyeing procedures. This modification is exemplified by raising processing temperatures, using swelling agents, developing new dyestuffs, etc. This method is not desirable since, in some cases it involves installation of new equipment and other changes.

A second approach to the problem has been to introduce a dye receptive component into the polymer chain from which the fiber is made. This approach is not the most desirable because while dyeing properties are improved the change also results in a sacrifice in the basic physical properties of the fiber. Zefran has been modified to obtain dyeability by a unique new process to yield dyeability without sacrificing good physical properties. Described previously as a "nitrile alloy," Zefran is based on polyacrilonitrile as are some other synthetic fibers which are known as acrylics. The dyeing assistant is incorporated in a manner which does not interrupt the basic polymer chain, thus allowing it to keep its natural physical characteristics.

The dyeing assistant is effective in improving the moisture regain characteristics of the new fiber. The nature of the dye assistant and its position on, rather than in, the polymer chain allows the new fiber to have greater flexibility in choice of dyestuff than any other fiber, natural or synthetic. In fact, there are five dyestuffs which are recommended for Zefran — vats, insoluble azoics (napthols), sulfurs, after-treated directs and neutral premetallized acids. These types of dyes have been chosen primarily because their excellent fastness properties go along well with the new fiber's improved durability in the physical sense.

Of particular importance to Zefran's desirability is its dyeability with the anthraquinone vats. The outstanding fastness properties to sunlight and high temperature laundering of these dyes is recognized and its use to date has been chiefly limited to cotton and rayon. When applied at temperatures below the boil, most synthetic fibers show little affinity to the anthraquinones. The same excellent fastness characteristics of these vats is obtained in Zefran dyeings under conventional conditions.

The recommendation of five specific types of dyestuffs does not mean that other colors cannot be used with Zefran. Other classes of colors will dye Zefran with good color build up. This is true, if fastness requirements are not high.

The new fiber may be dyed in conjunction with all of the natural fibers and some synthetics. The excellent vat dyeability suits Zefran admirably for blending with cotton and rayon. Some vat dyestuffs show even greater color yield on Zefran than on cotton. Odd as it sounds, it may be said that Zefran shows a greater dyeability with cotton type dyes than does cotton itself. With the proper adjustments in concentration and temperature, excellent union dyeings may be made on Zefran-cotton blends. It is important to note that when union dyeing with Zefran it may be necessary to adjust concentration and temperature. Studies of the factors involved must be made in order to find the best combination to obtain the desired results. In addition to vat dyeability in union dyeings, Zefran has been found to yield excellent results when dyed with napthols and after-treated direct colors. The important fact to consider in selection of dyestuffs is finding colors which have fastness characteristics which match the physical durability of the new fiber.

Similarly, in the dyeing of wool blends, the Zefran can be dyed with neutral premetallized dyes while the wool is dyed with acid premetallized dyes. For heather effects, acid premetallized dyes may be used. Resists or retarding agents can be effectively used in obtaining cross dyeing effects. The new fiber may be dyed in either the raw stock, package or piece. It has been dyed on various types of machinery in these states. Pressure dyeings have been found to be neither necessary nor advantageous. Piece dyeings have been made on becks, jigs and continuous units.

Physical Properties

The new fiber is white in color and has a round cross-section. Zefran has the very low shrinkage of one to two per cent in boiling water. This property is of prime importance in view of the fact that it will make for good dimensional stability in fabrics which are made of blends of Zefran and fibers which will shrink. Zefran's extensibility has been found by numerous tests to be 30 per cent. The tenacity of the new fiber is rated at 3.4 grams per denier and its modulus is 37 grams per denier. The moisture regain of the new fiber at standard conditions is 2.5 per cent. A physical property which is important to the resistance to glazing during ironing is the sticking temperature of the fiber. Zefran has the high sticking temperature of 490 degrees F.

Fabrics made of Zefran maintain 90 per cent of their dye properties when wet. The high modulus and yield point of the wet fiber shows that it retains its crispness and dimensional stability. Another factor which adds to the desirability of Zefran is the contribution toward control of static electricity by the fiber's moisture regain of 2.5 per cent. The regain is low when compared with natural fibers but is higher than many other synthetic fibers. Zefran's low density, in combination with its high resilience and permanent crimp, produces yarns which have high bulk and covering power. Fabrics made from the new fiber have greater loft and insulating powers than cotton, rayon or even woolen fabrics of comparable weights. Another factor which affects the aesthetic appeal of fabrics made from the new fiber is the ability to retain creases. This ability is the result of its high elastic recovery.

Minimum Care Qualities

While Zefran has sufficiently high moisture regain to promote comfort and low static in fabrics, it still has the ability to shrug off the effects of moisture and to dry quickly. This characteristic, provided sufficient quantities of the fiber are incorporated in the blend, makes Zefran useful in minimum care fabrics. It allows Zefran to contribute to very satisfactory press retention during home laundering. The wrinkle recovery characteristic of fabrics made with Zefran is roughly equivalent to that of wool which is generally noted for its good wrinkle recovery properties. The new fiber has superior wrinkle recovery properties compared to that of cotton and rayon. While Zefran has good dry recovery characteristics, it is really the resistance it shows to the effect of humidity which is more important in its use in blends with other fibers.

Characteristics which yield exceedingly high resistance to abrasion also contribute to a high degree of pilling. The characteristics of Zefran were adjusted to maintain adequate abrasion resistance and still minimize the tendency to pill. The new fiber also has a high resistance to microbiological attack and deterioration from rot. Tests have shown that cotton fabrics, after two weeks of burial in soil, lose over 90 per cent of their original strength characteristics. Zefran fabrics, on the other hand, show a strength loss of less than 15 per cent after two weeks of burial. Even after six weeks of burial, Zefran fabrics lose less than 20 per cent of original strength.

Processing Characteristics

Zefran also has excellent processing characteristics and has processed well both alone and in blends with wool, cotton and rayon on standard equipment utilizing the cotton, American synthetic, standard worsted and woolen systems. Zefran can also be satisfactorily processed on the newer tow to top conversion systems. At present, because of its superior resistance to shrinkage at elevated temperatures, Zefran does not develop the degree of differential shrinkage now associated with the high-bulk process used for acrylic fibers. Laboratory work, however, is encouraging and a high shrink version of Zefran is a good possibility.

Of course, there are some problems in the processing and dyeing of Zefran. For example, Zefran has, in common with all acrylonitrile-containing fibers, some tendency to yellow when used at high temperatures in contact with strong caustic solutions. Some of the standard cotton procedures for preparing the fabric for dyeing must be modified to avoid this problem. Satisfactory, simple and conventional methods are at hand to overcome these problems.

Garments produced in the initial wear testing program have shown that Zefran has the versatility and practicability for use in apparel fabrics. These garments have exhibited excellent retention of appearance after long periods of wear. They have excellent dimensional stability, show no appreciable shrinkage and exhibit little need for ironing. The fabrics are comfortable to wear and show no tendency to pill.

With this background, Dow Chemical Co. has decided to go ahead with commercial production of the new fiber and is in the process of building a new plant in Lee Hall, Va., for this purpose. The new plant is scheduled for completion in early 1958. The new facility will also house textile development, technical services and sales departments in addition to production operation.

Cibacron Reactive Dyes

. . . a new range that reacts chemically with cellulosic fibers

CIBA Co. Inc. has announced the introduction of the new Cibacron reactive dyes. Cibacron is said to be the first range of dyes that reacts chemically with cellulosic fibers. Designers and textile men for many years have known the need for cellulose dyes having both brilliant shades and a high degree of fastness. The new kind of dye, which reportedly fully meets these requirements, has been developed after extensive research in the laboratories of Ciba Ltd., Basle, Switzerland.

It is well know that dyes are fixed on the fiber either mechanically or physically in regular dyeing. The all-new Cibacron dyes, however, have in their molecules an atom that reacts chemically with the cellulose molecule, providing a strong bond. When applied in padding, printing or dyeing, the Cibacron colors exhibit very good fastness, especially to light, washing and crocking, and retain their natural brilliance. At this time, the following Cibacron colors are immediately available, and more will be added as the range is extended.

- Cibacron Brilliant Yellow 3G
- Cibacron Yellow R

Cibacron Brilliant Orange G
Cibacron Scarlet 2G
Cibacron Brilliant Red 3B
Cibacron Rubine R
Cibacron Blue 3G
Cibacron Turquoise Blue G

Dyeing Cycle

The Cibacron dyes are applied in a short and simple dyeing cycle, which includes fixing with alkali and salt to effect a chemical reaction between the dye and the fiber. Especially suited to padding and printing procedures, they only require regular dyehouse equipment and such easily available chemicals as common salt and soda ash. Short procedures at comparatively low temperatures result in economical application and protection of fabric quality.

Dyeings produced with the new color range are exceptionally brilliant and offer the dyer the opportunity of producing bright shades never before attainable on cotton and viscose rayon textiles. Since the fastness properties of the dyes are directly related to their chemical nature, it is important to have at least a general knowledge of the chemical reaction between the dye and the cellulose. Each of the Cibacron dyes has a reactive chlorine atom which combines with the hydrogen atom of the hydroxyl groups of the cellulosic material to form a stable compound. The resultant compound is stable to washing.

Combining brilliance and fastness in colors for cellulose and silk, the Cibacron dyes yield clear prints with good contrasts, or level paddings and dyeings in attractive self shades. The eight initial colors are compatible with each other and can be blended for a very interesting range of fashion shades. Fastness to rubbing and dry cleaning is outstandingly good.

Direct Printing

In direct printing the new colors can be applied to natural and regenerated cellulose fibers as self-shades and also alongside many other classes of dyes such as Ciba and Cibanone dyes, Cibantines, Cibaneutrenes, Coprantines, Aniline Black and Neosol Printing Black BD. In addition, they can be printed on napthol prepares alongside bases and salts. In resist printing they can be used for colored resists under pad-dyeings produced with Aniline Black, Napthol Blue and Cibantine dyes. Pad-dyeings produced with dischargeable Cibacron dyes may be discharged white or colored and also resisted to give good white or colored resists. Prints produced with Cibacron dyes may be stored for any period—both before and after steaming—without adverse effect.

Printing with Cibacron dyes reportedly presents no difficulties in either roller printing or screen printing. They yield sharply defined outlines and well-penetrated, level-blotches. Print pastes are smooth and exhibit good flow characteristics on both copper and chromium plated rollers. They are removed completely by the doctor blades and therefore are not transferred to other rollers. Crushing does not bring about any noticeable reduction in color intensity. Since the color of the print pastes is visible during printing, the danger of faults occurring is minimized.

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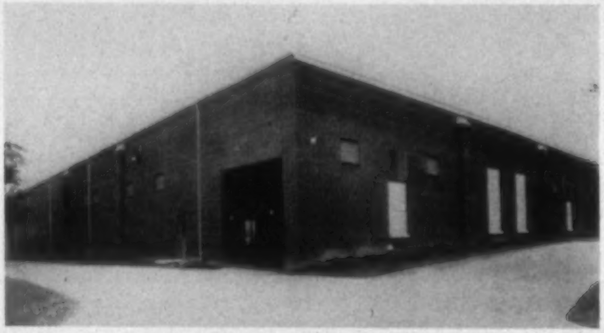


New assembly plant.

Gaston County Dyeing Machine Co.

opens new assembly plant

IN order to improve efficiency and offer better service to its customers, Gaston County Dyeing Machine Co. has added a new assembly plant to its facilities at Stanley, N. C. The new plant has three bays, each 40 feet wide and 275 feet long. The bays are completely covered by the latest type heavy-duty Tramrail hoisting systems. A 20-foot working height under the hoist hooks will permit the production of all types of heavy equipment.

For the past 36 years, Gaston County Dyeing Machine Co. has specialized in beam, package and raw stock dyeing, bleaching, extracting and drying machinery. In addition to conventional pressure extracting and drying equipment, the firm is now producing a new, patented Rapid-Dryer employing the closed system, static pressure principle. The unit is completely automatic, and is said to have proven to be most efficient in the drying of packages and cheeses of dyed and bleached yarns.

The company also produces a complete line of Hy-Vacuum pressure autoclaves for steaming and twist-setting fibers and yarns; a complete line of stainless steel machinery for dyeing, bleaching, extracting and drying tricot and open-width cloth; and custom built pressure vessels for a variety of applications. In addition to the assembly plant, Gaston County has a well equipped machine shop which produces centrifugal pumps, special valves, beam heads and other machined parts necessary for its line of products.

Office building and machine shop.

Maintenance, Engineering & Handling

What Management Expects of its **General Engineer**

By HERMAN GRANBERRY, West Point Manufacturing Co.

Management expects more than just technical knowledge from its general engineer or master mechanic. This paper, which was delivered before the A.I.E.E. Textile Electrical Conference at North Carolina State College last Fall, points out that integrity is a most important requirement for an engineering position.

MANAGEMENT generally expects the engineer to give facts from which it can make decisions. The engineer is expected to find the facts, analyze them and present them in a clear and objective manner and, often, to make recommendations or decisions as to the course of action. In brief, however, an engineer's job is to solve problems.

Management, on the other hand, is primarily concerned with making decisions. It is only natural, therefore, that engineering which concerns itself with solving problems and management whose job it is to make decisions should find that they have much in common. For this and other reasons, an increasing number of engineers have been brought into management in recent years, and in the future, even more engineers will be brought into top management. This is natural because the engineers' background and training are so well suited to managing, that is, the art of making decisions.

The general engineer is properly a part of management. It is true that the specific duties of this engineer will vary from one organization to another. He may be known as the "master mechanic," "plant engineer," or just the "engineer," and is usually charged with the maintenance, repair, and sometimes design and construction of plant and equipment.

Factors Involved

Engineering work, as is true with all work, deals with two factors—the technical, and the human. The technical factor is one with which all engineers are acquainted and are quick to acknowledge. The human factor is one which more and more engineers are recognizing as a real part of their job.

Webster defines "technical" as "of or pertaining to the useful or mechanical arts, or to practices, methods or procedures in any business, science or profession." In this discussion, "technical" is used in reference only to physical things while "human" is used with reference to people. In simple language the distinction is made herein between "things" and "people." The engineer's job concerns these two factors and, for that matter, so does management's job. The engineer's job is very much like a coin with two sides but who can say where one side stops and the other begins?

The Engineer's Training

Training and experience are the two gateways to all knowledge. These two gateways to technical knowledge have long been recognized and graduate engineers usually have ample technical training. Training and experience can also be used to gain more knowledge concerning human relations, but these gateways to the most important part of an engineer's work have long been neglected. Evidently a graduate engineer is expected to have been born with all necessary knowledge in human affairs or is expected to pick up this knowledge "on his own." Very few technical schools devote enough time or effort to training its students in human relations.

Our technical colleges and universities have largely concentrated on the technical training of the engineer. However, modern educators are realizing that engineers and other technical and scientific personnel must also be equipped and trained to work with people. As a result, more emphasis is being given to seeing that the engineering student also receives training in basic psychology, philosophy, and other subjects formerly taught only to arts and science students.

However, the simple truth is that modern, concise, basic courses on how to get along with people are not being taught in any school. Perhaps this is because these basic laws of human relations are not yet written into text books, or are not as fully understood as are most laws of mechanics and physics. It is a well-known and easily illustrated fact that our technical progress has far outdistanced our study of man himself. President Griswold of Yale University has said concerning the shortage of engineers: . . . "Yet the most urgent part of this urgent demand is for engineers who can cope with human problems."

This is a real challenge to our engineering colleges and it is one which some of them have already taken steps to correct, and others will in time, no doubt, meet this challenge. It must be remembered that a man's education should not stop when he gets his degree. His education should give him some basic facts, the desire to learn and knowledge of how to learn. His education in both the technical and human fields should continue throughout life itself.

Personal Character Traits

These are the traits that seem to most often affect one's dealings with or relations with other people. These are generally those most important items which are not taught in technical schools. *Integrity:* It has well been said that integrity is the one most important characteristic of an engineer or manager and is the one trait that the man must bring to the job. He can be taught many things on the job but integrity of character must be supplied by the man. Integrity is difficult to define but the lack of integrity is easily recognized. Integrity is a moral property and has to do with honesty, sincerity, loyalty and decency. It must be remembered that the average man is endowed with average integrity and is not to be considered dishonest and unscrupulous. The requirements for an engineer or a manager are above the average in regard to integrity. An engineer must guard his integrity as his most valuable personal asset. He should be fair, honest and loyal to those working with him, to those working under him, and to his superiors.

Ability to Get Things Done: It is a simple fact that management expects an engineer to want to work. This demands energy and aggressiveness. There is plenty of demand for engineers who are ready and willing to work and who can bring an aggressive and ingenious approach to the job. An engineer will make mistakes but he should profit by them and should not repeat his mistakes. The test of a good engineer is not that he doesn't make mistakes, but rather, that he can work his way out of them or turn them into a profit. A creative imagination is invaluable in solving problems. Clear and objective thinking is a must for an engineer. Accuracy is the first requirement. Speed will come with experience. Management has the right to, and does, expect the engineer to keep his feet on the ground and make clear-cut analyses of problems. He should know when to make a decision and when to refer the question to a higher authority. He should know his limitations and know when to call in an expert to help him. After a problem is solved or a decision made, clear and clean-cut reports should be made. A muddled report leads one to doubt that the problem has been properly solved.

Leadership: A certain amount of leadership is desirable in all engineering jobs. Some engineers are looked to for more leadership than are others. If an engineer is to solve problems and make decisions, he must have management's confidence in his results. This is a form of leadership. Leadership is difficult to define but leaders are aggressive, courageous and inspire others. Performance should be the goal, not conformance. All good leaders enjoy the loyalty and confidence of their followers; this is merited because the leader has first given his loyalty and confidence to his followers. A good leader is still a good follower.

Ability to Manage: The ability to manage work and workers is highly desirable in an engineer. The engineer is trained to manage things but people are another problem. All engineers should learn as much as possible about good management.

Personal Appearance and Attitude: We enjoy working with or for a person who is neat and clean and who has a positive and happy attitude regarding things in general. The engineer's associates and boss are no exception to this rule. If we like people they will like us; if we resist people they will resist us. It is in our power to build ourselves or to destroy ourselves. Our attitude toward others, to life itself, determines how we fare.

Technical Knowledge

The list of technical knowledge that management expects an engineer to bring to the job would read like an engineering curriculum. Management expects the engineer to understand the basic laws of physics and mathematics. Few sights are more pathetic than that of an engineer who has learned all the formulas but does not understand the basic laws and principles.

Mathematical Ability: This ability is perhaps one of the most important that an engineer has. In fact, engineering is based on physics and mathematics. If an engineer has a good foundation in math and is able to use this math, he has made a big stride toward attaining his technical training.

Analytical Ability: Very closely allied with mathematical ability is analytical ability. Clear logical reasoning is a most valuable asset. A problem clearly defined (i.e., well analyzed) is a problem half-solved. All too often we find engineers working on the wrong problem or the wrong phase of a problem. Management expects an engineer to be able to decide what is the true problem and how to attack it. Analytical ability may be said to be the ability to literally take a problem apart. How much easier it is to solve a great problem by solving the smaller, simpler parts one at a time than to attack the over-all problem with a scattergun attack.

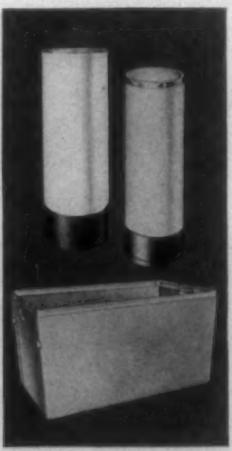
Ability to Communicate: If the most important thing for an engineer to be able to do is to solve problems, then perhaps the second most important thing is to be able to communicate his solution to others in such a form that they can take it and use it. From time to time an engineer will make oral and written reports. He must know how to write and how to speak. This can be and is taught in college but experience will be needed to develop this training. Management wants all engineering reports to be in a clear and understandable language. Most engineers seem to get a lot of satisfaction from using a great array of technical words and phrases. This is a decided disadvantage when reporting to non-engineers. As a rule, if a busy executive receives a ten-page engineering report he will not, and should not, be expected to read the report word for word. Best practice dictates that a summary of results or a synopsis of the report be given on the first page. Speaking is another form of communication which is not often used to advantage. Engineers are often expected to explain their ideas or test results to individuals or to groups of people. Speaking ability is best developed by practice.

Ability to Visualize: The best engineers have developed an ability to "think in three dimensions." They can literally build a machine, conveyor, or other device in their mind and then "turn the wheels" to see if it will operate satis-

THE NATIONAL SCENE

MAKESHIFT CONTAINERS RESULTED IN COSTLY DAMAGE at Barringer Knitting Mills, Philadelphia. Orlon sweaters went from mill to dye plant in paperboard cartons, which lasted only a few trips and often broke in transit. Result: pulled threads, smears of dirt, and the extra expense of dry cleaning or classifying items as "irregulars." Carton replacement was costly.

DELICATE FABRICS NOW TRAVEL SAFELY in Kennett "Knitwear Shippers." Barringer eliminated damage to knitted goods in transit when it switched from flimsy containers to strong, smooth, resilient Kennett boxes of National Vulcanized Fibre. These not only protect knitted goods from snags and soilage, but are also light in weight, easy to move and stack, last for years.



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factorily. The power to visualize is developed by training in such courses as descriptive geometry and also by using this faculty. This power to visualize is not limited to physical things such as nuts, bolts and gears, but it may also be applied to more abstract thinking.

General Knowledge: The engineer in a textile plant is expected to be a good all-round general engineer. He must be acquainted with many fields such as heating, ventilating, and air conditioning, machine design, maintenance, power plant engineering, stores engineering, replacement engineering, methods and standards work and a great variety of related problems that have to do with the construction and operation of a textile mill. Many of these fundamentals are learned in technical schools, but the application of them must be learned by practice.

Summary

It is submitted that management expects two things from its engineers: knowledge of how to work with people and technical knowledge. In present day practice, the human factor is the more important, and it is also the one which is most neglected in our schools. This means that each engineer must depend more heavily on experience and practice for knowledge in the field of human relations. Management wants an engineer it can absolutely rely upon. He must have integrity first and technical ability next. The latter is of little use without the former.

The engineer should not be afraid of work nor should he be looking for a "position." He should be willing to work and willing to put out his best whether he feels he is being paid for it or not. The engineer must always remember that next year's promotions are decided this year. Each man is on trial now and is being watched. Opinions are being formed day by day. Then when an opening does occur, management usually has a man in mind for it who by his attitude, ability and performance has already qualified himself for the new opening. What will a coin buy if one side is gold or silver, but the other is lead?

Cotton Crop Forecast Boosted 816,000 Bales

The Agriculture Department has increased its estimate of this season's cotton production by 816,000 bales. This increase is seven per cent more than the original estimate. Total production is now set at 12,713,000 bales of 500 pounds gross weight. This is based on a nationwide average yield of 446 pounds of lint cotton per acre which is 29 pounds higher than the record set in 1955 and 146 pounds per acre above average. The average yield in Arizona was estimated at 1,138 pounds per acre, nearly 2½ bales, for an all-time state high.

The indicated production is somewhat lower than the 1956 crop of 13,310,000 bales and the ten-year average of 13,669,000 bales. The crop is being produced on 13,686,000 acres, the total left for harvest after an indicated abandonment of 3.8 per cent. The 1956 crop was made on 15,615,000 acres. In the Eastern states, dry weather caused considerable shedding which was more than offset in some states by permitting more effective boll weevil control. In spite of this, weevil damage this year remains above average.

Promotions, Resignations, Honors, Transfers, Appointments, Elections, Civic and Associational Activities

PERSONAL NEWS

E. Kent Swift Jr. has been elected first vice-president and John H. Bolton Jr., vice-president, has been named director of sales for Whitin Machine Works, Whitinsville, Mass. Mr. Swift graduated from Harvard in 1948 and joined the company in 1949 after attending the Harvard Graduate School of Business Administration.

E. Kent Swift Jr.

John H. Bolton Jr.

He served in various capacities in the sales and service departments and in 1952 was named director of research. In March 1955, he was elected to the board of directors of the company and in March 1956 was named vice-president, liaison for engineering and manufacturing. Mr. Bolton attended Yale and came to Whitin in 1946. He filled positions in the sub-contract and repair sales departments until 1951 when he joined the treasury department. He was named assistant treasurer in 1953. In August 1953, in addition to his duties in the treasury department, he became manager of the American System Division. In March 1956 he was named vice-president, liaison for sales.

J. Porter Golden has been appointed Atlanta, Ga., regional manager of The Fafnir Bearing Co. Mr. Golden was previously production manager of Golden's Foundry and Machine Co., Columbus, Ga. He succeeds A. G. Laughridge, who has retired after 33 years with the company.

Dorel Marian, a technical delegate of Compagnie Francaise des Matieres Colorantes, Paris, France, will arrive in late September for a six-week stay in the U. S. During this time he is to stage several demonstrations of C.F.M.C. dyestuffs for Francolor Inc. customers. Mr. Marian will deliver a paper on new printing developments in France at the A.A.T.C.C. national convention. While in the U. S. he will work out of the Francolor offices in Woonsocket, R. I.

Thomas F. Griffin has joined the product development department of the research and development division, Callaway Mills Co., LaGrange, Ga., as a textile technologist. He was previously with Hewitt-Robbins Inc., Buffalo, N. Y., in fabric and product development work.

Walter W. Hladky, senior staff member, Werner Textile Consultants of Atlanta, Ga., and New York City, has completed ten years of continuous service with the company.

A. J. Picciotti has been assigned to the newly-created position of general sales manager for the Warwick Chemical Division, Sun Chemical Corp., Long Island City, N. Y. During the past six years, Mr. Picciotti has been technical service representative for Warwick in the New York-New Jersey area.

Charles R. Dear has been appointed manager of marketing research for the textile division, U. S. Rubber Co., New York City. Mr. Dear, formerly a vice-president of A. D. Juilliard Co., joined the company's textile division a year ago and was acting manager of marketing research for the past six months.

R. Z. Cates, president, Arkwright Mills, Spartanburg, S. C., has been elected mayor of the Woodburn Hills area which plans to incorporate.

Carl R. Harris, vice-president in charge of personnel and industrial relations, Erwin Mills Inc., Durham, N. C., will assume duties in the field of public relations formerly held by Chauncey W. Lever, who resigned recently.

Kenneth C. Towe, since January 1952 president of American Cyanamid Co., has been elected to the newly-created post of chairman of the board of directors at the regular quarterly meeting of directors. Dr. Wilbur G. Malcolm, formerly vice-president for marketing, was elected president

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and chief executive officer of the company. At the same meeting, Kenneth H. Klipstein, vice-president, was elected to the board of directors. . . . Mr. Towe joined the Cyanamid organization in 1926 as a member of its accounting department and after serving as assistant treasurer and comptroller, was appointed treasurer in 1939 and vice-president in charge of finance in 1945. He succeeded the late Raymond C. Gaugler as president on the latter's death in 1952.

James H. Phillips has been appointed manager of sales and production co-ordination for the textile division, U. S. Rubber Co., New York City. Mr. Phillips joined the company in 1950 and spent three years in labor standards at the Winnsboro, S. C., and Hogansville, Ga., mills. He became a marketing and economic analyst at the New York headquarters of the company after receiving a master's degree in business administration at Harvard University in 1955.

Grady Webb Jr., assistant plant manager, Langdale Mill Division, West Point (Ga.) Mfg. Co., has been appointed assistant plant manager of the company's Lantuck Division. He has been with the company since 1934. The Lantuck Division is that segment of the company which is engaged in the manufacture of non-woven fabrics. . . . George Willingham, supervisor of twisting, slashing and spooling at Langdale, replaces Mr. Webb. Mr. Willingham has been with the company since 1933.

John T. Wigington

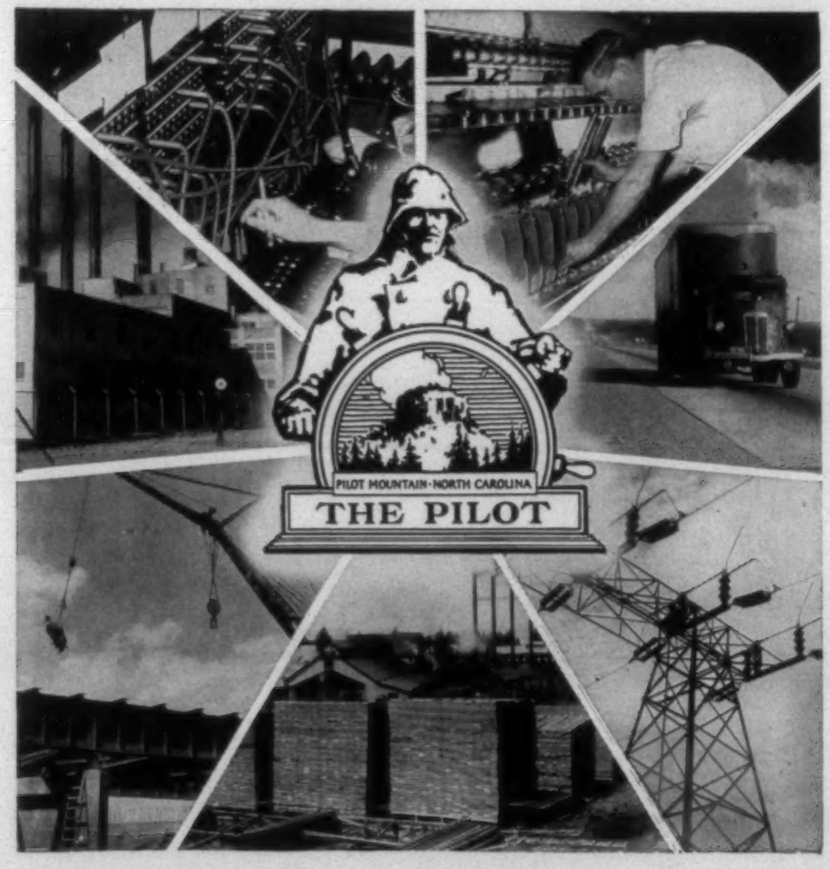
John T. Wigington, Clemson, S. C., has ended 16 years of continuous service as secretary of the Fiber Society, a national organization dedicated to the advancement of scientific knowledge pertaining to fibers and fiber products. He helped found the society in 1941 and is the only secretary it has ever had. Mr. Wigington will serve three more years on the governing council. He also is the only member of the organization to serve 16 years on the council. Mr. Wigington said he was stepping out as an officer of the society because of the press of his duties as director of the technical service division of the American Cotton Manufacturers Institute, central trade association of the textile industry. He holds a B. S. degree in textile engineering from Clemson and has been connected with the textile industry all of his adult life.

Dr. Rutherford B. Thompson Jr. has been appointed a group leader in the Chemstrand Corp.'s research and development division. He will lead the Acrilan process polymer group. Dr. Thompson earned three degrees, including his doctorate, at Virginia Polytechnic Institute. He joined the company following completion of his graduate work in 1952. . . . Bronislaw Ajdukiewicz has been appointed a group leader in the dyeing and finishing department of the company's research and development division. He will head the dye application research group. A native of Poland, Mr. Ajdukiewicz graduated from Leeds University in England in 1949. He later moved to Canada to work with the Monarch Knitting Co. and Dominion Textile Co. Mr. Ajdukiewicz joined Chemstrand in 1956.

H. Dorsey Lanier

H. Dorsey Lanier, Shawmut, Ala., has been appointed Georgia-Alabama representative by the Watson & Desmond Co. Mr. Lanier will have charge of the company's office in West Point, Ga. He was formerly with National Ring Traveler Co. He succeeds Hugh K. Smith who is going into business for himself.

C. G. Bramlett, former supervisor of standards, Langdale (Ala.) Mill Division, West Point (Ga.) Mfg. Co., has been named overseer of spinning. He began his association with Langdale in 1945 as job training supervisor. . . . John Lyons has been named to succeed Mr. Bramlett as supervisor of standards. He is a graduate of Auburn with a degree in textile engineering. He went to work at Langdale in 1940 and has worked in the cloth room, waste, maintenance, and as night supervisor. . . . Dan Hale, former spinning room su-



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pervisor, has been transferred to the twisting department as supervisor. He has been with the company since 1939 and has held supervisory positions in waste, twisting, maintenance and weaving.

W. C. (Dan) Daniel has been named assistant to the president of Dan River Mills Inc., Danville, Va. Mr. Daniel is former national commander of the American Legion and has been active in that organization for about 12 years. He has been serving as a personnel executive for the company and has been with the firm since 1939.

Ralph D. Padgett

Ralph D. Padgett has been elected to the post of vice-president in charge of technical service for Roberts Co., Sanford, N. C., manufacturer of textile spinning frames. Mr. Padgett joined the company in 1951 after broad experience in actual mill operations including 12 years with The Springs Cotton Mills and five years with Martel Mills. He directs all company technical service in the field and has toured Roberts spinning installations abroad. He will continue to handle all of his former responsibilities as manager of technical service with special emphasis on increased service to customers and potential customers.

Dr. Wayne Sisson, American Viscose Corp., Marcus Hook, Pa., has been elected president of The Fiber Society at its recent annual meeting held in Boston, Mass. Dr. Sisson succeeds Dr. Burt Johnson, National Cotton Council of America, Memphis, Tenn. . . . S. Jack Davis, The Chemstrand Corp., Decatur, Ala., has been elected vice-president of the scientific organization. He has served on the governing council for the past three years. . . . Dr. Hugh M. Brown, textile consultant, Clemson, S. C., has been re-elected treasurer, and Julian Jacobs, Textile Research Institute, Princeton, N. J., has been elected secretary of the society.

Tom C. Jolly III has assumed the duties of general manager of Laurens (S.C.) Mills. He has been superintendent of Drayton Mills, Spartanburg, S. C., since 1948. Both of the plants are owned by Deering, Milliken & Co.

H. B. Askew

H. B. (Booch) Askew is now representing the National Ring Traveler Co. and Sterling Division in Georgia and Alabama in addition to the other companies he has been representing in this territory. Prior to 1951, Mr. Askew sold National Ring Travelers in these states for 18 years.

Hugh G. Chatham, president, Chatham Mfg. Co., Elkin, N. C., has been elected president of Springfield (Tenn.) Woolen Mills Co. The Chatham Co. bought Springfield Mills last May and is continuing the manufacture of fine woolen blankets and

2 new products to improve machine performance

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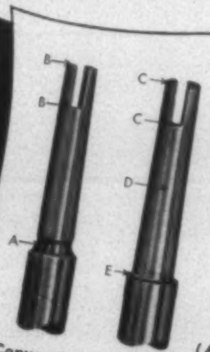

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apparel fabrics. . . . Sam Neaves, transferred by the company to Springfield to direct operations, has been elected vice-president. . . . William Butler, Chatham controller, has also been elected to the post of secretary-treasurer.

J. Victor Nelson, a veteran of 32 years in the textile industry, has been named superintendent of Dan River Mills' Wetumpka, Ala., plant. He has been with the company for the past six years, coming from the main plant at Danville, Va., where he was division superintendent and carding and spinning supervisor. Mr. Nelson succeeds William H. Cook, who has been superintendent at the Wetumpka plant since 1951.

Frank D. Andruss

Frank D. Andruss, formerly vice-president and general sales manager, General Latex Corp., has been elected president of Alco Oil & Chemical Corp., Philadelphia, Pa. He graduated from Yale University in 1939 and joined the organization of Charles T. Wilson Co. as head of the latex department. Following war service during World War II and governmental service during the Korean War, Mr. Andruss joined General Latex in the position he held when elected to the Alco presidency.

The appointment of Thomas E. Croxson as a group leader in the dyeing and finishing department of Chemstrand Corp.'s research and development division has been announced. He will be leader of the dye application group. A native of Charlotte, N. C., Mr. Croxson worked as a head dyer for Burlington Mills in Dublin, Va., before joining Chemstrand in 1956. He received his early schooling in Charlotte and graduated in 1943 from Clemson College.

Loyd Rice has been appointed agent for Flint River Cotton Mills, Albany, Ga. He will be in charge of manufacturing operations and sales for the company. Mr. Rice was vice-president and general manager of Anchor Rome Mills for ten years. He was associated with Alabama Mills for seven years prior to his connection with Anchor Rome.

George Asnip, Excelsior Mills Inc., Pendleton, S. C.; and John L. Hutcheson Jr., Peerless Woolen Mills, Rossville, Ga., have been named to the executive committee of the National Association of Wool Manufacturers.

Akbar F. Brinsmade and Christopher R. Matchett have joined Celanese Corp. of America as senior process engineers in the chemical process engineering department of the company's textile division, Charlotte, N. C. They will be engaged in recommending textile division process improvements and additions and in the economic evaluation of new and existing projects. Mr. Brinsmade formerly was president and managing director of Promotora Nacional Industrias, S. A., Caracas, Venezuela. He is a graduate of the University of Wisconsin and obtained his master's degree at the Massachusetts Institute of Technology. Mr. Matchett, former development engineer with Rohm & Haas Co., holds a master's degree from Harvard University Business School and two bachelor of science degrees from Texas A. & M.

F. E. Grier, president and treasurer of Abney Mills, Greenwood, S. C., has been elected a trustee of the South Carolina Foundation of Independent Colleges.

T. Bernard Phillips, , superintendent, Haynsworth Plant, Woodside Mills, Anderson, S. C., has been named chairman of the industrial division of the United Fund Campaign this year. . . . Roy L. Coffee, Orr Mills, Anderson, who served as the division's chairman last year, will assist Mr. Phillips as co-chairman.

Rutledge Morris has been appointed manager of the Spartanburg, S. C., warehouse and supply department of Draper Corp., Hopedale, Mass. Mr. Morris succeeds Albert H. Raditz, who resigned.

Junius M. Smith, president, Clark Publishing Co., Charlotte, N. C., recently attended the President's conference on Technical and Distribution Research for the Benefit of Small Business. The conference was held Sept. 23-25 in Washington, D. C.

Raymond H. Daniels has recently been elected president of the S. A. Felton & Son Co., Manchester, N. H. He succeeds J. Briggs Felton, who is retiring after more than 45 years of continuous service. Mr. Daniels will continue as a director and general manager and Mr. Felton will continue as a director. The company manufactures hand and machine brushes for industrial use. Announcement also has been made of the appointment of James B. Felton Jr. as a vice-president and assistant general manager and Leverett H. Nichols as assistant general manager.

Albert Bagian

Albert Bagian, formerly vice-president of sales and engineering for Smith, Drum & Co., has joined Turbo Machine Co., Lansdale, Pa., to direct sale of Smith, Drum machines. Turbo recently announced purchase of the Smith, Drum business. Mr. Bagian was with Smith, Drum for 12 years, in draftsman and engineering capacities, and later as sales manager and vice-president.

Dr. W. Hale Charch, director of pioneering research in the Du Pont Co.'s textile fibers research division, has been awarded the Columbia University's Charles Frederick Chandler medal in recognition of his outstanding achievements in the industrial development of various synthetic fibers. Dr. Charch, who has been associated with Du Pont research since 1925, administers long range research activities directed chiefly toward new types of synthetic fibers. He was graduated from Miami (Ohio) University in 1920 and took his graduate work at Ohio State University.

T. C. Richbourg

Thomas C. Richbourg, formerly with Wennonah Cotton Mills, Lexington, N. C., and the weaving division of Springs Cotton Mills, Lancaster, S. C., has joined the textile division of The Keever Starch Co. He is a 1948 graduate of Clemson College. Mr. Richbourg will make his headquarters in Greenville, S. C. He will be doing sales and service work with the company.

W. A. Pridmore has been named general overseer of weaving at the Stonewall, Miss., plant of Erwin Mills Inc. Mr. Pridmore was formerly overseer of weaving at Aragon (Ga.) Mills. Prior to that he was assistant superintendent at Brookford (N. C.) Mills. He has also been associated with Union Buffalo Mills, Buffalo, S. C., Judson Mills, Greenville, S. C., and the Mathews Plant of Greenwood (S. C.) Mills.

Alexander J. Maino has assumed the duties of general manager of Neisler Mills Division, Massachusetts Mohair Plush Co., Kings Mountain, N. C. Mr. Maino succeeds William Ford, who resigned in August.

Frederick E. Green

Frederick E. Green has been appointed technical service representative for the textile chemical division of the W. H. & F. Jordan Mfg. Co., manufacturer of specialty lubricants and spinning assistants. A major in engineering and business administration, Mr. Green was graduated from Duke University in 1942 and later attended Northeastern University in Boston. For the past five years Mr. Green has been associated as a technical service representative for the Industrial Rayon Corp., with much of his time having been spent evaluating commercial fibers in co-operation with the textile research department of North Carolina State College. Prior to this time he was employed by the M. T. Stevens Co., Division of J. P. Stevens & Co. Inc., North Andover, Mass. Mr. Green has many years of direct association with the basic problems of the textile industry including product development, processing research, customer service, cost production and quality control experience.

Donald Sibley has been assigned as a sales representative to the Charlotte, N. C., office of Allis-Chalmers Industries Group. Mr. Sibley is a mechanical engineering graduate of Duke University.

Dr. Stanley R. Detrick has been appointed to the newly-created position of assistant director of sales for chemicals in Du Pont's dyes and chemicals division. Dr. Detrick joined the company in 1930 after receiving his Ph.D. degree from Ohio State University. He began his career as a research chemist in the sulfur colors division of the company's Jackson Laboratory, Deepwater Point, N. J. In 1953 he was named technical manager of the chemicals and auxiliaries group of the dyes and chemicals division. In this capacity he was responsible for the solution of technical problems on existing sales products and served as liaison between the technical and sales divisions in developing new products. Dr. Detrick was appointed sales manager of the chemicals and auxiliaries group of the dyes and chemicals division in 1956.

James H. Bowman has been named superintendent of Burlington Industries' Flint Plant in Gastonia, N. C. Mr. Bowman was formerly general overseer at the company's Phenix Plant in Kings Mountain, N. C.

Miles E. Denham has joined the Chemstrand Corp., Decatur, Ala., as a public relations representative. He will head the community relations section of the department and will help guide the firm's participation in local activities in the company's operating areas. His office will be maintained in Decatur. Mr. Denham was state editor for the *Birmingham* (Ala.) *Post-Herald* before joining Chemstrand. Prior to becoming state editor in 1950, he had worked as a general news reporter, sports writer and assistant city editor for the former *Birmingham Age-Herald* and the *Birmingham News*. He graduated from Birmingham Southern College with a Bachelor of Arts degree in English Literature in 1942.

E. Pierce Ward

E. Pierce Ward has been appointed technical service manager for the Southern district sales office, Charlotte, N. C., of Ciba Co. Inc. He graduated from Clemson with a degree in textile chemistry. After short periods with the Ciba Co. in New York City, the Graniteville (S. C.) Co., and three years of teaching at Clemson, Mr. Ward returned to Ciba in 1944. He was in charge of the research section and supervised the establishment of standards and test methods for the new Toms (N. J.) River vat dye plant. He also served as manager of the company's technical service department.

Samuel L. Hayes, manager of the Southern district of Ciba Co. Inc., with headquarters in Charlotte, N. C., was the guest of honor at a recent dinner at the Charlotte City Club at which he was presented a gold watch commemorating his 25 years of service with the company. The award was made by Dr. H. Marshall, president of the company. Among those attending the dinner were many past and present members of the Ciba 25-Year Club, representatives of Ciba corporative management and associates from the Ciba Southern district offices. Mr. Hayes is a graduate of Virginia Military Institute. He also completed the course in chemical engineering at Massachusetts Institute of Technology. His career with the company started in 1932 when he was named manager of the Greenville, S. C., office. In 1936, when Ciba combined this office with the Greensboro, N. C., office in Charlotte, Mr. Hayes was appointed to the manager's position.

James M. Cloney has been named sales manager of Antara Chemicals Division and John T. Robinson has been named to the newly-created position of director of sales administration for the dyestuff and chemical division, General Aniline & Film Corp., New York City. Mr. Cloney, a sales executive with Antara since 1946, will direct sales and marketing operations for the division's chemical products.

Three manufacturing executives of Burlington Industries member companies have been given new assignments with their respective companies. James D. Barbee, formerly vice-president, has been named executive vice-president, Cramerton (N. C.) Mills; Carl Annas, formerly division manager, has been named vice-president of Mooresville (N. C.) Mills; and Larry P. Martin, who was serving as manager of planning, development and quality control,

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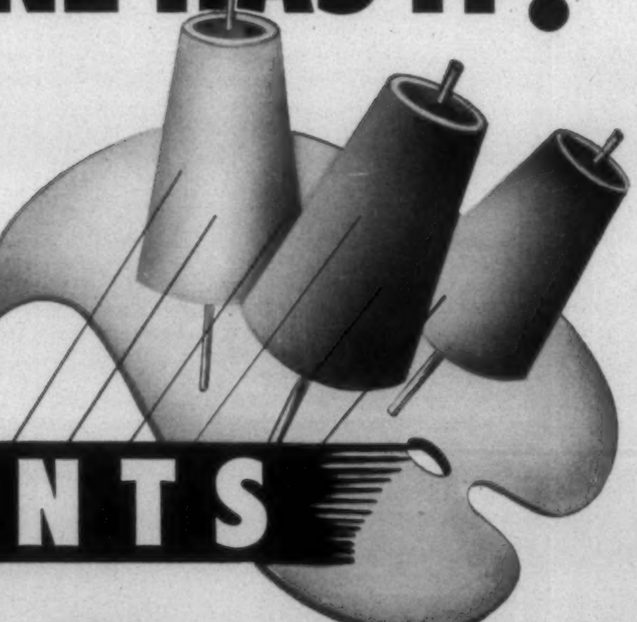

has been named a vice-president of Cramerton Mills. Mr. Barbee has been manager for the past six years of Cramerton Mills operations and was named vice-president in November 1956. He first joined Burlington in 1946 as a staff member of the spinning division and was sent to Cramerton in 1949 on special assignment, on completion of which he was named division manager in 1951. Prior to joining Burlington, Mr. Barbee had been associated with several large textile firms in North Carolina, Virginia and Tennessee in various managerial capacities. He graduated from the University of Tennessee. . . . Mr. Annas' elevation to the vice-president's post at Mooresville comes after 12 years with Burlington, during which he has served in various manufacturing and selling capacities. Joining the company in 1945 as a methods and standards engineer, he served at various plants in the Carolinas and Georgia. Mr. Annas attended Lenoir Rhyne College. . . . Mr. Martin has been associated with Cramerton Mills since 1924. He first started to work as a weaver. In 1932 he became assistant designer and in 1941 was appointed designer, the post he held when Burlington acquired Cramerton Mills in 1946. Since 1950 he has had broad managerial responsibilities for planning, development, quality control and packing and shipping.

Rodney H. Harm

Rodney H. Harm has been appointed sales representative for the textile division of Onyx Oil & Chemical Co., Jersey City, N. J. He will serve the Piedmont region from headquarters in Greensboro, N. C. Mr. Harm was educated at Valley Forge Military Academy and the Philadelphia Textile Institute. He was formerly associated with Harm-Bromley Inc., Philadelphia, Pa., manufacturer of pile fabrics. He was also associated with J. P. Stevens & Co. Inc. and with Burlington Industries' Dublin (Va.) Finishing Plant.

C. S. (Skooter) Willard, general superintendent of the Rhodhiss (N. C.) Division of Pacific Mills, is resigning his position effective Oct. 1. Mr. Willard, who has been in textiles since 1945, will join Willard Smelting Co. of Charlotte, N. C., as assistant manager. He has also resigned his position as chairman of the Piedmont Division of the Southern Textile Association, a post he has held for the past 18 months. Succeeding him as superintendent at Rhodhiss is B. L. Coleman, formerly overseer of No. 1 weaving. Willard Herman, second hand, No. 2 weaving, succeeds Mr. Coleman.

The retirement of Walter A. Mohr, senior vice-president, James Talcott Inc., has been announced by the company's board of directors. The retirement will become effective September 30. Mr. Mohr joined Talcott's credit department in May 1929 and later became an account executive. In 1938, he was elected a vice-president and in 1940 became a director. He was named senior vice-president in 1956. Mr. Mohr will remain on the board of directors and will continue to serve as a member of the company's profit sharing plan committee.

Recent appointments in the organization of Exposition Cotton Mills, Atlanta, Ga., include: M. L. Barkley, Huntsville, Ala., manager of standards; Fred Burden, Piedmont, S. C., overseer of the cloth room; S. L. Wilkins, Starkville, Miss., overseer of weaving; and Harry M. Gibbons, Starkville, Miss., manager of production.

Several promotions of production executives of Owens-Corning Fiberglas Corp. have been announced. George S. McElroy has been named to the post of manager of production planning of the textile products division. His present post of general factories manager of the division, which he held since 1954, will be filled by Richard W. Muzzy. Replacing Mr. Muzzy as manager of the Anderson, S. C., plant is Harry N. Jones, now manager of the company's plant at Ashton, R. I. Jerry B. Holschlag, in charge of the expansion program at the Anderson plant, has been named manager of the Ashton plant. Mr. McElroy joined the company's research laboratories at Newark, Ohio, in 1946 as a project technician and two years later moved to the Ashton plant when the development operations of the textile products division were moved there. In 1950 he was transferred to Anderson to supervise construction of the plant and became manager in 1951 when it started up. He held this post until 1954, when he was appointed general factories manager. Mr. Muzzy, who has been with the Anderson plant since it was built in 1951, joined the company in 1948 in the cost control department of the plant at Newark, Ohio. During his three-year tenure as manager, the Anderson plant's employment increased from 700 to 1,200 persons and its production facilities have been expanded to include a textile mat operation. Mr. Jones has been with the company since it was founded in 1937. Two years later he was placed in charge of a laboratory pilot plant in Newark, Ohio, and in 1942 moved to Ashton to supervise all forming operations. He has served as plant manager since 1944. Mr. Holschlag's appointment as manager of the Ashton plant follows an 11 year career with the company which began in Newark, Ohio, where he served as a draftsman and later as a project manager in the engineering division. In 1955 he became deputy chief engineer and the following year transferred to Anderson as process and facilities engineer.

OBITUARIES

Ralph C. Anderson, 60, former textile executive with the Carolina Process Co., Charlotte, N. C., died last month. He joined the Carolina Dyeing & Winding Co., Mount Holly, N. C., in 1930 and later became president and treasurer of the firm. In 1948 the company was reorganized and moved to Charlotte as the Carolina Process Co. Mr. Anderson, who retired in 1956, is survived by his widow, mother, two brothers and a sister.

Roy J. Beauregard, section superintendent of bleaching and chemical control, Dan River Mills, Danville, Va., died unexpectedly last month while undergoing surgical treatment at Danville's Memorial Hospital. He had been connected with the textile industry for the past 37 years. He was graduated from Brown University with a degree in chemistry in 1920 and had been associated with the Stillwater Mills, Harrisville, R. I.; Aberfoyle Mfg. Co., Chester, Pa.; Fairforest Finishing Co., Spartanburg, S. C.; and two textile concerns in Mexico. He is survived by his widow and two sisters.

Edward P. Cave, 76, who rose from stock boy to chairman of the board of Ely & Walker Dry Goods Co., St. Louis, Mo., died last month at his Summer home at Mullett Lake, Mich. He had retired last year after 58 years of service with the wholesale house. Under Mr. Cave's direction, Ely & Walker acquired controlling interest or outright ownership in Calhoun Mills, Calhoun Falls, S. C.; Carolinian Mills, High Shoals, N. C.; Hart Cotton Mills, Tarboro, N. C.; F. W. Poe Mfg. Co., Greenville, S. C.; Postex Cotton Mills, Post, Tex.; Sherman (Tex.) Mfg. Co. and Clinchfield Mfg. Co., Marion, N. C. These mills operate about 371,000 spindles and 8,400 looms. In addition, approximately 76 per cent interest in Southern Bleachery & Print Works, Taylors, S. C., was purchased in 1952. In 1955 Ely & Walker was acquired by Burlington Industries Inc. and in addition to remaining chairman, Mr. Cave served as a director of Burlington.

Dr. Hugo J. Kauffmann, 87, a research scientist in the field of physical chemistry and a member of the research staff of Becco Chemical Division, Food Machinery and Chemical Corp., Buffalo, N. Y., died last month after a long illness. A native of Germany, Dr. Kauffmann received his doctorate from the University of Heidelberg in 1892. He has been on the Becco staff sincce his arrival in the U. S. in 1939. His work has been primarily concerned with oxidation mechanisms and kinetics.

Dr. Roy H. Kienle, 61, a physical chemist and formerly director of the research service department of the Stamford Laboratories, American Cyanamid Co., died Sept. 2. He began his career at Cyanamid in 1933 as a research chemist and became director of applied research at the Bound Brook, N. J., plant in 1952. In this position he was responsible for research in pigments, dyes, textile finishes and resins. He transferred to Stamford in 1955. Dr. Kienle received his B. S. degree from Worcester Polytechnic Institute in 1916. He received a master of science degree in chemistry in 1927 from Union College and a Ph. D. in chemistry in 1938 from Rutgers University. He is survived by his widow, two sons and a sister.

Edgar C. Martin, 70, president, Hudson Narrow Fabrics Co., Easley, S. C., and

OBITUARIES

a director of Pickens (S. C.) Mill, died last month. Mr. Martin is survived by his widow, a daughter, two brothers and a sister.

Henry M. McKelvie, former textile and machine shop official, died at his home in Kings Mountain, N. C., last month. He was vice-president and general manager of Firestone Cotton Mills, Gastonia, N. C., from 1935 to 1938. From 1938 to 1945, he was in charge of Southern properties of the Merrimack Mfg. Co., Huntsville, Ala. He returned to Gastonia as a partner and manager of McKelvie Machine Co. Mr. McKelvie last worked as superintendent of Valdese (N. C.) Mfg. Co. He retired some years ago and has remained a partner in the machine company. He is survived by three sons, three daughters, a brother and five sisters.

G. L. Williams, 53, vice-president and secretary, Swift Mfg. Co., Columbus, Ga., died last month. A lifelong resident of Columbus, he had received his education at the University of Georgia. He is survived by his widow, two daughters, his parents, two brothers and three sisters.

William A. Wolhar, 67, president of Consos Inc., Charlotte, N. C., died Sept. 1 after a two-month illness. Prior to becoming associated with Consos ten years ago, Mr. Wolhar had been with Springs Cotton Mills for two years, and superintendent of dyeing and finishing at Rosemary Mfg. Co., Roanoke Rapids, N. C., for 15 years. He was a member of the Piedmont Section of the American Association of Textile Chemists & Colorists. Surviving are his widow, six daughters and two sons.

MILL NEWS

CONSTRUCTION. NEW EQUIPMENT. FINANCIAL REPORTS. CHARTERS. AWARDS. VILLAGE ACTIVITY. SALES AND PURCHASES

Chester, S. C.—The spinning capacity of the Springsteen plant of Springs Cotton Mills here is to be increased by 30 to 50 per cent. A full line of cotton fabric manufacturing machinery will be installed in a new plant annex which is to be built at the plant. An engineering survey will determine whether a two or three-story annex is practicable with existing structures. The minimum size of the expansion is 150 feet square and two stories high.

Lexington, N. C.—An expansion program, amounting to an increase in production of approximately 20 per cent, has been announced for the Frank Ix & Sons Corp. plant in this city. The plant presently has 20,000 spindles and 408 looms and is engaged in the manufacture of rayon fabrics.

Columbus, Ga.—Completion of an addition to the Swift Mfg. Co. plant here is due this Fall. The new structure, with 33,000 square feet of floor space, will comprise two floors atop a two-story south wing of the plant. The addition will be devoted to the modernization of spinning and slashing operations and aid material flow.

Thomasville, N. C. — Amazon Cotton Mills here has installed a 54-inch Fletcher Twintainer extractor. The machine has two sets of removable baskets for extracting dyed raw stock and transporting it by overhead rail to the dryer. The sale of the machine was handled by the F. W. Warrrington Co., Charlotte, N. C.

New York City—Burlington Industries Inc. here has announced the purchase of certain of the properties of Martel Mills Corp. and Henrietta Mills. These properties involve four plants in the Martel group and three plants of the Henrietta group. The Martel plants are located at Asheville, N. C.; Batesburg, Lexington and Spartanburg, S. C. The Henrietta plants are located at Caroleen and Henrietta, N. C.; and Cherokee Falls, S. C. Negotiations were handled through the Alester G. Furman Co., Greenville, S. C.

Lincolnton, N. C. — Massapoag Mills Corp., a wide duck producing mill here, has been sold to the Shuford textile interests of Hickory, N. C. The newly-purchased mill has been closed for several months. Future plans for the mill have not been disclosed.

Spray, N. C.—Fieldcrest Mills Inc. has announced that 58 of the 66 looms purchased for the Bedspread Mill here have been put into operation. Forty-six of the looms were installed under existing jacquard heads. Twelve 120-inch looms, equipped with terry motions capable of weaving loop-pile bedspreads were grouped with existing looms of that type.

Concord, N. C. — Kerr Bleaching and Finishing Works Inc., here has placed an order for sufficient monovalent flu vaccine of the Asiatic variety to take care of all employees. The vaccine will be administered at no cost and will be under the supervision of the Cabarrus County Health Department. Inoculations will begin as soon after delivery as possible.

Dalton, Ga.—Crown Cotton Mills here has recently completed the installation of an extensive live storage rack system engineered by The Alvey-Ferguson Co., Cincinnati, Ohio. The system automatically provides first-in first-out control of stored yarn. This control is important because dyed lots must be kept together in order until final shipping. The live storage racks consist of many units of gravity roller conveyor mounted in an adjustable rigid frame.

Laurens, S. C. — The L. O. F. Glass Fibers Co., Toledo, Ohio, has purchased an 88-acre site here for the establishment of a large, fully-integrated glass textile yarn plant. The facility is to be built on a unit-by-unit basis. The final size of the plant and number of employees that will be required was not revealed at the time of the announcement.

Douglasville, Ga.—The Douglas Division plant, here, of Glendale Mills Inc., which was offered for sale as a going concern earlier this Summer, is being liquidated. J. L. Stifel & Sons Inc., which controls the mill, has entered into a merger agreement with Indian Head Mills Inc. It is reported that some of the equipment at the plant will be used by Indian Head and the balance of the machinery is being offered piecemeal by Thackston & Redding, used machinery dealers, Spartanburg, S. C. The plant, which is being sold as a package, consists of a two-story manufacturing building containing 93,000 square feet of floor space and a 35,000-square-foot warehouse. It is all enclosed in a fenced tract of seven acres.

Rutherfordton, N. C. — Reeves Bros. Inc. will close its subsidiary, Grace Cotton Mill Co., here after the stock in process has been run out. The mill employs some 120 persons. Present plans call for the removal of the equipment to other plants in the Reeves group. The mill makes fancy broadcloths on 112 looms.

Leaksville, N .C.—Fieldcrest Mills Inc. here has installed a 54-inch Fletcher Twintainer extractor with three sets of removable baskets for extracting and transporting skeins from the dyeing machine to the dryers by overhead rail and hoist. The sale of the machine was handled by the F. W. Warrington Co., Charlotte, N. C.

Durham, N. C.—The Golden Belt Mfg. Co. here has applied to the city board of adjustment for relief from zoning restrictions which would permit it to construct a new office building. The building will be a one-story masonry structure. The cost of the new facility has not been disclosed.

Bessemer City, N. C.—Ideal Industries here has announced that Callaway Mills, Unity Plant, LaGrange, Ga., has installed 36 deliveries of new Ideal drawing. . . . Chicopee Mfg. Co., Walhalla (S. C.) Division, has added 20 deliveries of Ideal drawing changeovers. . . . Balston Yarn Mills Inc., Lincolnton, N. C., has installed 42 deliveries of Ideal drawing changeovers. . . . The Springs Cotton Mills, Lancaster, S. C., is in the process of changing over 864 deliveries of drawing to the Ideal Feathertouch system.

Spray, N. C.—Fieldcrest Mills Inc., here, has purchased the entire capital stock of the St. Marys (Ohio) Woolen Mfg. Co. Inc. In a joint announcement from the presidents of the two companies it was said that Fieldcrest will operate the newly acquired plant as a subsidiary corporation. The officers of St. Marys have agreed to remain with that company in their respective capacities insuring a continuity of management and policies. The new acquisition employs some 260 persons and was founded nearly 100 years ago. It manufactures a line of high quality wool blankets, a few synthetic numbers and all-wool piece goods. The St. Marys field sales force will continue to sell the line to customers across the country. Present plans do not call for addition of these numbers to the Fieldcrest line.

COOSA PINES, ALA.—Beaunit Mills here reports a resumption of operations on a limited basis. No date has been given for the plant to go into full production. The rayon tire cord manufacturer has been closed since the middle of August by what was termed a wildcat strike of 12 workers.

WHITNEY, S. C.—Boards of directors of Indian Head Mills Inc. and J. L. Stifel & Sons Inc. approved final terms for merger of the two firms in August, according to a joint report from the presidents of both companies. The firms had previously agreed to merge through an exchange of stock. The merged business will be conducted under the name of Indian Head Mills Inc. it was stated. All present officers of Indian Head will hold the same posts in the new organization. In addition, A. C. Stifel Jr. and W. Flaccus Stifel, presently directors and officers of Stifel, and Jay T. McCamic, a Stifel director, will become directors of the combined company. Indian Head operates a cotton weaving mill at Cordova, Ala., a cotton weaving mill and finishing facilities here and a customer service department at Cheraw, S. C. Indian Head Puerto Rico Inc., a wholly-owned subsidiary, operates a cotton weaving mill in Ponce, Puerto Rico. Stifel operates a cotton weaving mill at Glendale, S. C., which will be continued in operation as a print cloth mill. Operations at the Stifel cotton weaving mill at Douglasville, Ga., and finishing and printing plant at Wheeling, W. Va., have been discontinued. The combined company will have assets of more than $15,200,000 and a total sales volume of about $25,000,000, it was indicated.

EASLEY, S. C. — The Glenwood Mills, Division of Mayfair Mills, Arcadia, S. C., has announced plans to immediately proceed with further modernization and expansion of facilities here. Preliminary work has been started on the project which will require more than a year to complete. Plans include the construction of a 30,000-square-foot, one-story, air conditioned weave room. The carding and spinning departments are to be modernized in keeping with the latest trends in the industry for improving the quality of fabrics and maintenance of peak efficiency in production. Mayfair Mills owns two large plants at Arcadia which were modernized a few years ago at a cost of $4 million.

WHITINSVILLE, MASS.—Whitin Machine Works has announced the following new machinery purchases. Rocky River Mill, unit of Bigelow Sanford Carpet Co. Inc., Calhoun Falls, S. C., is installing nine Whitin Model E wool spinning frames, 120-spindles each, seven-inch gauge, five-inch ring, 12-inch traverse, with a total of 1,080 spindles. In addition the company is installing three Whitin Model K dry twisters, 100 spindles each, 7½-inch gauge and six-inch rings. . . . Trenton Cotton Mills, Gastonia, N. C., has purchased two long-draft roving frames with a 10x5x8-inch package. . . . Oak River Mills, Bennettsville, S. C., is installing three Whitin Model E wool spinning frames, 6½-inch gauge, 11-inch traverse and five-inch ring. Frame pieceouts are being applied to 12 other Model E frames by the addition of 48 spindles to each. The total of new and added spindles is 880. . . . Pharr Worsted Mills Inc., McAdenville, N. C., has ordered five Whitin Pacemaker twisters with 160 spindles each. The frames have six-inch gauge and 4½-inch rings. . . . Standard-Coosa-Thatcher Co., Chattanooga, Tenn., has ordered seven long chain quilling machines. . . . Columbus (Ga.) Mfg. Co. has ordered ten Hi-Pro roving frames with 96 spindles each. The roving frames have packages which measure 12x6½x10 inches. . . . Sellers Mfg. Co., Saxapahaw, N. C., has ordered nine Whitin Super J combers and two ribbon lap machines. . . . Hampton Looms of Virginia Inc., Bedford, Va., has purchased four Model E wool spinning frames with 4¾-inch gauge, 11-inch traverse, 3¾-inch ring and 150 spindles each. A total of 600 new spindles was involved in the purchase.

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S.T.A. Schedules Fall Divisional Meetings

The Southern Textile Association's schedule of Fall Divisional Meetings will get under way Saturday morning, Sept. 28, at Hickory, N. C., with the meeting of the Piedmont Division at the Catawba Country Club. C. S. Willard of Pacific Mills, Rhodhiss, N. C., chairman of the division, will preside. Featured speaker at the meeting will be Grady Stephens, General Electric Co., Newton, N. C. His topic will be "You and Labor Law." A second feature of the meeting will be a panel discussion on labor relations moderated by Mr. Willard. Lunch will be served following the meeting.

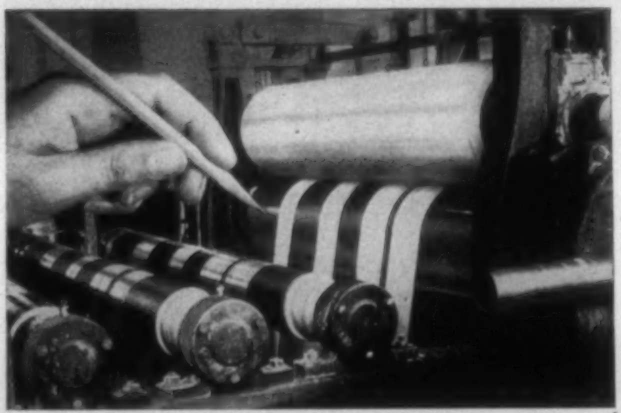
The association's Northern North Carolina-Virginia Division will meet Saturday morning, Oct. 19, at Fieldcrest Mills, Fieldale, Va. The Eastern Carolina Division will meet Saturday morning, Oct. 26, at the School of Textiles, North Carolina State College, Raleigh. The South Carolina Division will meet at Clemson on Saturday morning, Nov. 9. Program details for these meetings have not been announced.

Piedmont Section A.A.T.C.C. To Meet Sept. 28

The Piedmont Section of the American Association of Textile Chemists & Colorists will hold its annual meeting at the Barringer Hotel, Charlotte, N. C., Sept. 28. Robert L. Ward, superintendent of dyeing, Leaksville Woolen Mills, Mount Holly, N. C., will be in charge of the arrangements for the session. The Honorable Charles Raper Jonas, congressman from North Carolina's tenth congressional district, will be the principal speaker at the annual banquet. C. O. Stevenson, Ciba Co. Inc., chairman of the Piedmont Section, will preside at the banquet. Warren E. Rixon, Carbide & Carbon Chemical Co., Charlotte, and chairman-elect of the Piedmont Section will present the Past Chairman Plaque to Mr. Stevenson.

John C. Boesch, Wica Chemicals Inc., Charlotte, will preside at the technical session at which Dr. Charles J. Weidmann, technical director, Ciba Co. Inc., New York City, will discuss a new group of dyestuffs recently introduced by his company under the name Cibacron Colors. Dr. Weidmann will discuss the chemical structure of the new dyes and explain their reaction with cellulose. A general description of the different processes of application of the reactive dyes and results from practical experience will be thoroughly covered. The printing application with reactive dyes is a subject of great importance and methods of carrying out this work with samples of practical application in screen and roller printing will be displayed. Dr. Weidmann will discuss the fastness properties of the Cibacron Colors in their application to cellulosic fabrics in dyeing and printing and their aftertreatment with resin. He will also discuss the potential growth and economics of these dyes as compared to those which are presently used in the textile industry.

Henry E. Millson, manager, technical service laboratories, American Cyanamid Co., Calco Chemical Division, will discuss "The Anomalous Behavior of Direct Dyes." Mr. Millson's lecture will include a discussion on the changes which occur in direct dyes during prolonged boiling, together with some of the reasons for poor reproducibility from lot to lot and variations in shade and fastness properties, along with methods of application which will assist the dyer in controlling his shades. Mr. Millson will



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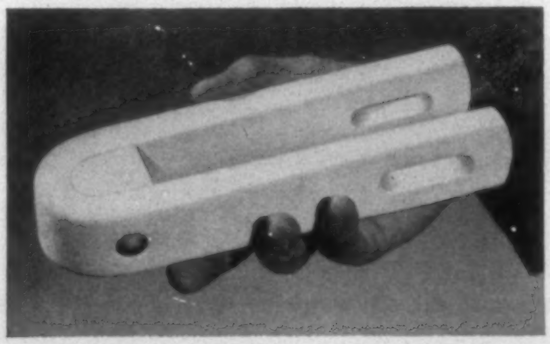

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show the results of microscopic studies with the high-temperature pressure microdyeoscope and his lecture will be illustrated with slides showing the changes which occur in textile fibers and dye baths during treatments between 50° F. and 325° F. Mr. Millson's talk will include the treatment of cotton, Orlon, Dacron with carriers, wool and fur fibers.

Osborne C. Bacon of the organics chemical department, E. I. du Pont de Nemours & Co., Wilmington, Del., will present a paper entitled "Formaldehyde Evolution from Textiles." He will discuss a quantitative method for determining the amount of formaldehyde given off by textiles under varying conditions of storage and will describe how a sample of fabric is stored in a gas-tight container with water or an aqueous solution of glycerine, depending upon the relative humidity expected in storage. The formaldehyde evolved is collected in the water or glycerine solution by isothermal distillation and determined quantitatively by visual colorimetric or spectrophotometric methods. Rate of formaldehyde evolution curves for dimenthylol ethylene urea are given. They show: (1) A low ratio of free formaldehyde to dimenethylolethylene urea is desirable to minimize formaldehyde evolution. (2) A neutralizing wash greatly reduces formaldehyde evolution. (3) Less formaldehyde is evolved with a MgC12 catalyst than with an amine hydrochloride under the same conditions of application.

Chemical Finishing Conference Oct. 2-3

The National Cotton Council will sponsor its sixth annual Chemical Finishing Conference Oct. 2-3 at the Statler Hotel in Washington, D. C. Judging from the tentative program released by the Cotton Council, the conference will move at a brisk pace, with four technical sessions on the schedule.

The conference will open at 9:30 a.m. on Wednesday, Oct. 2, with Fred S. Perkerson, Southern Regional Research Laboratory, acting as chairman of the morning session. Papers to be presented include "Reactivity of Cellulose," A. R. Urquhart, The British Cotton Industry Research Association; "Oil and Water Repellent Treatment for Cottons with Fluorochemicals," Leon Segal, Southern Regional Research Laboratory; and "Factors Affecting the Dyeing of Cotton Apparel Fabrics," Richard Steele, Rohm & Haas Co.

A second session Wednesday afternoon will be headed by Fred Fortress of the Celanese Corp. of America. Papers scheduled for this portion of the conference include "The Effect of Silicone Softeners on Resin-Treated Cottons," B. G. Simpson, Dow Corning Corp.; "Durable Creasing of Wrinkle-Resistant Cottons," J. David Reid, Southern Regional Research Laboratory; and "Progress Report on Garment Treatments," Robert T. Graham, National Institute of Drycleaning.

The conference reconvenes Thursday morning, Oct. 3, with a third technical session headed by J. Marshall Cole, Cold Spring Bleachery. An as yet unannounced speaker from the Heberlein Co. will open this session with a paper on "Versatile Cotton in High Style Finishing." Following this paper will be a panel discussion on "Performance Standards for Wash-Wear Cottons." Acting as moderator for the panel discussion will be Mr. Cole.

The closing technical session will get under way at 2:00 p.m. on the afternoon of the third. This portion of the conference, to be chairmanned by Thomas D. Hawley of United Merchants Laboratories, will hear two papers—"Actual Cellulose Reactants," by James B. Irvine, Quaker Chemical Products Corp.; and "Dialdehydes as Cotton Cellulose Cross-Linkers," by Melvin D. Hurwitz of the Rohm & Haas Co.

Depreciation Rate Review Urged By N.A.W.M.

Suggested federal tax depreciation schedules for textile machinery in woolen and worsted mills should be liberalized, according to the National Association of Wool Manufacturers. The Internal Revenue Service now is reviewing its Bulletin F schedules of useful lives of depreciable property. In a letter to I.R.S., Edwin Wilkinson, N.A.W.M. executive vice-president, cited reasons why wool-worsted mill machinery was having a shorter useful life. He pointed out that intensity of operation of most machinery has been increasing steadily since the last review in 1942. Accompanying data show a steady increase in multiple shift operation of woolen and worsted mills.

Mr. Wilkinson's letter also said: "The variety of raw materials has expanded greatly since 1942 and this has triggered concomitant developments in manufacturing technology, dyeing and finishing. In 1942 scarcely more than 150 million pounds of fiber in the form of man-made staple or tow were available in this country and nearly all of this was rayon or acetate. Since then a host of new fibers has been developed. The volume of their production and consumption has soared. The end is not in sight. Their use has extended into all branches of the textile industry. As a consequence we believe that an allowance for normal obsolescence adequate in 1942 would be quite inadequate today."

Union Gives Up On Organizing Burlington

The Textile Workers Union of America has given up its long and fruitless campaign to organize plants of Burlington Industries. Following its official withdrawal from an election scheduled at the company's Radford, Va., plant, the union announced that it was withdrawing from all other elections pending in Burlington plants. The union advised Burlington employees at Dublin and Vinton, Va., that it "has told the National Labor Relations Board to cancel the requests for elections in Burlington Mills." The two plants were the only units of the company where elections were still pending.

The union campaign against Burlington plants had been in progress for more than two years, centering primarily on Virginia operations of the company. In the past four months, T.W.U.A. petitioned for seven elections, losing two of them and withdrawing from five before a vote could be held. A Burlington spokesman said that the entire campaign had been a "complete failure" for the union. "The T.W.U.A., after months of trying to drive a wedge between management and employees in these plants, has backed out," he stated. "We appreciate the loyalty of our employees—they have won a great victory. The union effort was unsuccessful because our employees had confidence in their company and their plant, and no confidence in the union, its leadership and its tactics."

The T.W.U.A. campaign, which began with considerable fanfare in 1955 with Burlington plants as the announced target, was watched with interest throughout the South, and particularly by the textile industry, which remains largely unorganized. T.W.U.A. in April of this year petitioned for its first election of the Burlington campaign at Peerless Woolens, Rossville, Ga., but withdrew after an election date had been set. In June, at the company's Galax, Va., plant, the union was defeated. In August, employees of the company's Old Dominion Finishing plant, Hurt, Va., voted overwhelmingly against the union, 248 to 41. Next, scheduled elections at Altavista and Radford, Va., were cancelled by the T.W.U.A. and the organizing drive ended with the union withdrawal from the pending elections at Dublin and Vinton. Another union, the Hosiery Workers, petitioned earlier for elections at Burlington Hosiery plants in Marion and Chilhowie, Va. However, this union also withdrew before employees could vote.

Lyman Becomes Bancroft Licensee

Lyman (S. C.) Printing & Finishing Co., a subsidiary of M. Lowenstein & Sons Inc., has become a licensee of finishing processes owned by Joseph Bancroft & Sons Co. and its trademark Everglaze. Lyman Printing & Finishing Co. was organized to acquire the Lyman Finishing Plant when Lowenstein purchased the cotton division of Pacific Mills in 1955.

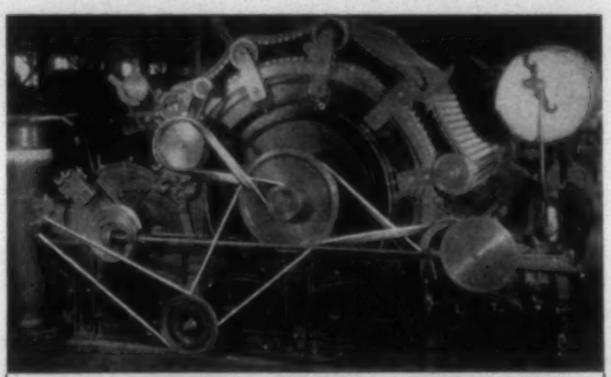
S. C. Leads In Looms, Spindles, Output

"South Carolina's leadership of the textile industry is emphasized more strongly than ever by the latest United States Department of Commerce figures on fabric production and the number of looms and spindles," according to a report from the S. C. Development Board. This state is shown to be ahead of both North Carolina and Georgia combined in total broad woven fabric production and in the number of looms in place as of Dec. 31, 1955. "South Carolina's central position in the nation's textile industry thus is indisputably established since the Carolinas and Georgia overwhelmingly dominate the field," the board's report said.

For the first time, the Commerce Department figures give loom figures for the various textile states. Heretofore, the reports mostly have been confined to spindles and spindle activity. The report added that "South Carolina long has been ahead of North Carolina in the number of spindle hours of operation but its lead in looms is far more impressive." Total broad woven fabric production in South Carolina in 1955 amounted to 4,013,000,000 yards, which exceeded the combined North Carolina and Georgia production of 2,000,000,000 and 1,548,000,000 yards, respectively.

South Carolina is credited with a total of 158,335 textile looms of all kinds—cotton, synthetics and woolens and worsteds. North Carolina has 91,703 and Georgia 60,280. South Carolina's cotton loom total is 131,443 compared with 66,895 for North Carolina and 53,629 for Georgia. As of June 29, South Carolina had 6,551,000 spindles in place and 5,947,000 of them were active. The corresponding figures for North Carolina were 5,867,000 and 5,017,000 and for Georgia 3,077,000 and 2,783,000. In total spindle hours June 29, South Carolina boasted 3,328,000 to 2,678,000 for North Carolina and 1,259,000 for Georgia.

Not reflected in the Commerce Department figures is



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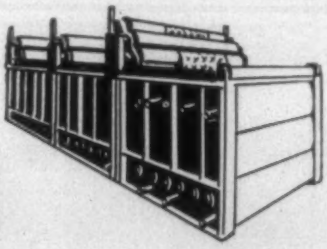

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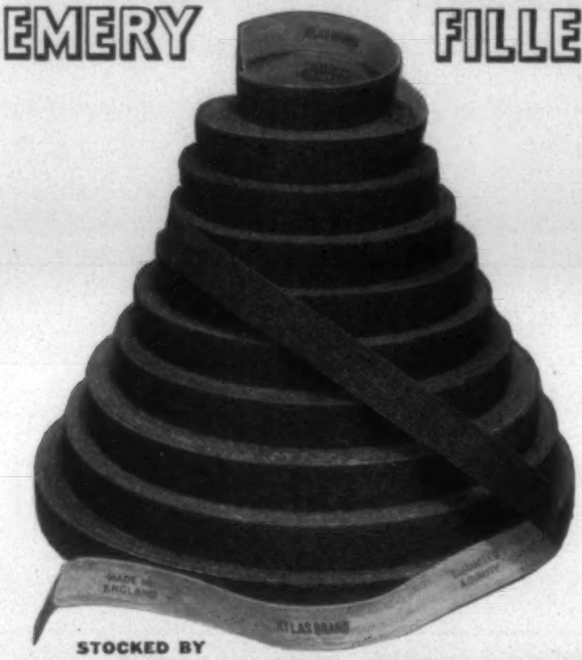

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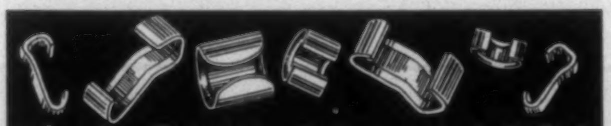

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the sharp growth of the woolen and worsted industry in the state in the last two years. South Carolina now has the only two large commercial wool combing plants in the South and Charleston has become the South's port of entry for wool. Wool imports through Charleston grew from virtually nothing in 1953 to 17,500 bales in 1954 and to 58,177 bales in 1956. And for the first 5½ months of 1957, Charleston's wool exports exceeded the 1956 figures. The first new integrated woolen mill to be built in the United States in 25 years was opened in February 1956 at Barnwell, S. C.

N. C. Textile Manufacturers To Meet

Dr. William Friday, president, University of North Carolina, and Dr. Leonard Smith, director, Utilization and Research Division, National Cotton Council of America, will address the 51st annual meeting of the North Carolina Textile Manufacturers Association at the Carolina Hotel, Pinehurst, N. C., Oct. 9-10. Some 400 to 450 members are expected to attend the meetings which will begin with the election of new officers at the morning session Oct. 9.

J. C. Roberts, president, Textiles-Incorporated, Gastonia, N. C., will deliver the president's annual address at the open meeting Friday morning. In addition to Mr. Roberts, officers of the association are: Halbert M. Jones, Waverly Mills, Laurinburg, N. C., first vice-president; William C. Cannon, Cannon Mills Co., Kannapolis, N. C., second vice-president; and Hunter Marshall, secretary-treasurer.

Directors whose terms expire this year are: Harry C. Carter, J. P. Stevens & Co., Greensboro, N. C.; J. C. Cowan Jr., Burlington Industries, Greensboro; P. Huber Hanes, P. H. Hanes Knitting Co., Winston-Salem, N. C.; Dr. D. R. LaFar Jr., Harden Mfg. Co., Gastonia, N. C.; H. T. Rindal, Berkeley Mills, Balfour, N. C.; and Harold W. Whitcomb, Fieldcrest Mills, Spray, N. C.

Georgia Cotton Crop Is Smallest In 82 Years

The 1957 cotton crop will be the smallest since 1875 in the state of Georgia. The Crop Reporting Service forecast the cotton yield at 460,000 bales which is more than 20 per cent below last year's total and only 17 per cent of the record yield of 2,769,000 bales in 1911. The yield per acre is expected to be a record high of 379 pounds compared to the previous high of 376 pounds recorded in 1955. Only in drought-stricken northwestern counties is the turnout expected to be under record levels.

Faster Depreciation Schedule Needed Now

The textile industry should be given faster textile machinery depreciation to offset to some extent the advantage which the U. S. government is giving to foreign mills. This is the view of the American Cotton Manufacturers Institute, which points out that faster tax depreciation would have a salutary effect not only for the textile industry itself but also for the textile machinery industry and the raw material suppliers of both industries. Being able to replace obsolete machinery would enable the U. S. textile industry to compete more easily with foreign mills on both the domestic and world markets.

The A.C.M.I. pointed out that the textile industry also has a need for retaining more operating capital in its business. The industry has been hit by inflation and rising labor costs but textile prices are at about the lowest point in the past ten years. An institute spokesman said "it is obvious that we are one of a few industries which are not abreast with the economic expansion of the entire economy."

The present composite tax depreciation rate for textile machinery under Bulletin F is about four per cent per year. This gives machinery an average comparable life of 25 years. A specific rate is set for every individual piece of machinery, so this figure is an average. The textile and textile machinery industries are calling for a 15-year tax life on a composite basis. The A.C.M.I. said that after 15 years the mill would have some 40 per cent more money to use for expansion or other purposes.

The depreciation rates presently in use were set in 1937 and have not been changed since that time. The rates were based on one-shift use or approximately 2,000 hours per year rather than the 6,000-hour operating schedule now prevalent in the industry. In setting the rates the Treasury Department did not include any allowance for "sudden or extraordinary obsolescence such as is occasioned by revolutionary inventions, abnormal growth or development or other unpredictable factors," the A.C.M.I. spokesman said. Thus the present method of taking depreciation does not take into account the technological development of machinery since 1937.

In 1954 the Congress liberalized depreciation allowances to a certain extent by allowing the manufacturer to use either the old straight-line depreciation method or a new "double declining balance" method. Under the new method more of the cost of capital equipment could be written off in the first few years. Congress also authorized another depreciation method—known as "sum-of-the-digits" method—which works out pretty much like the double declining balance system. The liberalized depreciation methods apply only to new machinery and new plants first put in use after Dec. 31, 1953.

Board Of Trade To Make Annual Awards

The annual awards of the textile section of the New York Board of Trade will be presented this year to John C. Hughes, chairman of the board, McCampbell & Co. Inc., and to Barry T. Leithead, president, Cluett Peabody & Co. Inc., it was announced by William P. Wright Jr., textile section chairman. The presentations will be made at a luncheon at the Waldorf-Astoria Hotel on Nov. 14.

Textile School Scholarships Announced

The West Point (Ga.) Mfg. Co. is offering 12 more textile scholarships at Alabama Polytechnic Institute, Auburn, valued at $2,000 each, or $24,000 in all, to high school graduates. The plan was inaugurated in 1953 and 43 young men have participated in the textile educational program. "The program," according to Ivey L. Murray, director of training for the company, "is different from the usual 'Co-op' program in that the students go through planned training in the mills each alternate quarter for which they are paid regular wages. They then attend the textile school at Auburn for a quarter, with all expenses paid by the company." The quarterly rotation system extends over a period of 12 quarters, six on the job and six in college. Certificates are issued those who complete satisfactorily

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* * * *

Harold Alfred Wagner, of Cooleemee, N. C., a senior in the School of Textiles at North Carolina State College, has been awarded the $600 American Enka Corp. scholarship at the college for the 1957-58 academic year. Mr. Wagner has established an excellent academic record during the past three years. A 1949 graduate of Cooleemee High School, he worked for Erwin Mills Inc., for several months, served in the U. S. Marine Corps for two years and studied at Catawba College for one year before enrolling at State College in June 1955. He has one of the highest academic records at N. C. State and also is active in extra-curricular activities. Mr. Wagner won the $400 American Enka Corp. scholarship as a junior at the school last year.

* * * *

Two new $500 scholarships from the Leon Lowenstein Foundation Inc., New York City, have been presented to Clemson College. The foundation currently has six students under other scholarship programs at the school. New recipients are William P. Kennedy, 17, Manning, S. C., and William L. Reynolds III, 17, Decatur, Ga. Both men entered the Clemson School of Textiles this Fall. Joel Richardson, assistant professor of textiles at Clemson College, has been granted a one-year study leave to do graduate work at North Carolina State in Raleigh. Prof. Richardson is a 1942 Clemson graduate. J. Lester Thompson, assistant professor of yarn manufacturing, and Dr. William T. Rainey, associate professor of textile chemistry and dyeing, have returned from leaves to rejoin the textile school faculty. Prof. Thompson, a 1942 Clemson graduate, is completing work toward his master's degree at Georgia Tech. Dr. Rainey, a 1939 Davidson graduate, with a doctorate from the University of North Carolina in 1949, is engaged in nuclear training work at the Oak Ridge National Laboratory in Tennessee.

* * * *

Two students in the School of Textiles at N. C. State have been awarded Burlington Industries Foundation scholarships, valued at $500 each. They are Walter Kenneth Lynch, Raleigh, a junior; and J. C. Yancey, Newton, N. C., a senior. Mr. Yancey won the $500 Burlington Industries Foundation scholarship as a junior at the college last year. He is specializing in textile chemistry. Prior to entering State College in January 1955, Mr. Yancey was employed in the weave room of Burlington Industries at Newton. As a student at State College, he has worked on a part-time basis in the college's textile chemistry department. Mr. Lynch, who studied at Duke University from 1948-1950, registered as a student at State College in September 1956, and has made an outstanding record at the college. Between the time he ended his studies at Duke and enrolled at N. C. State, he worked for six years for Superior Yarn Mills Inc., Mount Holly, N. C., rising to the position of general overseer of carding.

* * * *

Announcement has been made of the Textile Study Scholarships for 1956-57 awarded from funds established by Alliance Color & Chemical Co., Newark, N. J. and

Blackman-Uhler Co., Spartanburg, S. C., dyestuff manufacturers and divisions of The Andover Co. These scholarships, awarded to outstanding students on the basis of aptitude, need and character, are in the amount of $500 each. The following are the awards for 1956-57: Alabama Polytechnic Institute—Reupert A. McDaniel Jr., LaGrange, Ga., a senior; Clemson Agricultural College—Kenneth G. Jordan, Anderson, S. C., a senior; and Harry H. Perkins Jr., Elloree, S. C., a junior; North Carolina State College—Victor H. Garrou, Valdese, N. C., a senior.

* * * *

Two Raleigh, N. C., students have won Ciba Co. scholarships, valued at $500 each, in the School of Textiles at N. C. State. They are Daniel D. Ward and Olin Everette Wilson. Both students have made outstanding records since enrolling in textile chemistry at the college. Mr. Ward is a junior and Mr. Wilson is a senior. Mr. Ward's scholarship will be renewed for his senior year provided he maintains a satisfactory academic average during his junior year. Mr. Wilson received the company's scholarship as a top-ranking junior in the School of Textiles last year. Both men have demonstrated ability as potential leaders of the textile industry and rank high in their academic work. They are both veterans of military service.

* * * *

The South Carolina Textile Manufacturers' Association has announced the awarding of two freshman scholarships to Clemson College. Vernon L. Gaskins, Chesterfield, S. C., and James L. Adams Jr., Spartanburg, S. C., are the recipients of the scholarships. Both men are 1957 high school graduates. Mr. Gaskins ranked academically in the first ten of his class and was a letterman in football and basketball in addition to other activities. Mr. Adams had an "A" average in all high school subjects and had previously won a certificate of merit from the National Scholarship Foundation for distinguished performance on national selection tests for 1957. He was a four-sport athlete in high school.

* * * *

Three students in the School of Textiles at N. C. State College have been awarded scholarships, valued at a total of $1,000 and presented by the Shapiro Bros. Factors Foundation, New York City. The award winners are Donald Max Joyce, High Point, N. C., a sophomore; Charles Wayne Hammer, Siler City, N. C., a junior; and Kenneth Franklin Stout, Asheboro, N. C., a senior. The three students all have top-ranking records at the college.

Each student will receive an award of approximately $330. Mr. Joyce was employed in a textile mill before entering college. Mr. Hammer has maintained an "A" average at college. He won a Shapiro Bros. scholarship as a sophomore last year. Mr. Stout is specializing in management and knitting at the college. He is a member of a number of honorary and professional societies.

* * * *

The Texize Chemical Co. scholarship in textiles has been presented to Robert Cecil Hartzog, Blackville, S. C. Mr. Hartzog, 17, will receive a $2,000 four-year assistance from the company, with renewal dependent on satisfactory work. He has entered the Clemson School of Textiles.

* * * *

One of the oldest scholarship recipients in Clemson College history has been awarded the $400 Keever Starch scholarship in textiles for 1957-58. The student, Sumpter D. Smith, 38-year-old senior from Grambling, S. C., gradu-

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ated from Spartanburg Junior College in 1938 and returned to the classroom last year after a 17-year absence. He compiled a high 3.1 cumulative grade point ratio as a junior in textile engineering.

* * * *

Scholarships provided by the Herman Cone Family Foundation Inc., Greensboro, N. C., and valued at a total of $1,500 have been awarded to three students in the School of Textiles at N. C. State College. The award winners, each of whom will receive $500, are Robert Harris Pope Jr., Cedar Grove, N. C., a sophomore; Eddie Max Barringer, Maiden, N. C., a junior; and Duncan Dale Chappell, Candor, N. C., a senior. The scholarships were established at State College by the Cone family of Greensboro in memory of the late Herman Cone, former president and chairman of the board of the Cone Mills Corp. The scholarship winners all have exceptionally good academic records and have been active in extra-curricular activities since enrolling at the school.

A.A.T.C.C. Convention Schedule Announced

The schedule for the annual national convention of the American Association of Textile Chemists & Colorists, to be held at the Hotel Statler, Boston, Mass., Nov. 14-16, has been announced. Registration for the convention will begin Nov. 14 on the mezzanine and will continue daily from 8:00 a.m. to 6:00 p.m. The technical program will be held in the ballroom on the morning and the afternoon of the 14th; the morning of the 15th; the morning of the 16th and in the Bay State Room on the afternoon of the 16th.

Intersectional contest papers will be presented in the ballroom during the afternoon of the 15th. Exhibits will be located in the ballroom assembly, Georgian Room and parlors A, B & C. The Hancock Room of the hotel has been reserved for the convenience of the lady guests and members. Parlor D has been reserved for the reception committee. Parlor E will be utilized for personnel service. Parlor F has been assigned to the press. Lady guests will be provided with interesting tours of historic points of interest in Boston and its suburbs.

Fluorochemicals Applied To Cotton Fabrics

Cotton fabrics which are highly repellent to both oil and water, yet show little change in other properties, have been prepared by chemical treatment in research being conducted at the Southern Utilization Research and Development Division of the Agricultural Research Service, U.S.D.A., in New Orleans, La. Details and results have been published recently by Frederick J. Philips, Leon Segal and Leopold Loeb, scientists engaged in the research project.

In developing treatments, workers proceeded from demonstrations by other scientists that the least wettable surface is the one having the lowest surface energy. To reduce the surface energy of cotton fibers, treatments with several fluorochemicals were applied. It was found that treatment with the chromium complex of a perfluoromonocarboxylic acid such as perfluoro-octanoic acid chromic chloride and with poly (fluoro-esters of acrylic acid) such as 1,1-dihydroperfluorobutyl acrylate greatly enhances the repellency of cotton fabrics to water and oil, and perhaps to other liquids. Tear and breakage strengths, elongation and air permeability proved to be decreased only slightly, if at all.

Flat abrasion resistance was greatly enhanced by the acrylate treatment. To determine oil repellency, droplets of four different oils were permitted to stand on samples of treated fabrics for 14 days; if complete wetting had not occurred, and if no trace of liquid had appeared on the underside of the sample, the fabric was considered to show excellent repellency to the oil used.

Southern Industrial Boom To Continue

The business man has been largely responsible for the dynamic forward drive which is transforming the economy of the South, according to Dr. Frank J. Soday of the Chemstrand Corp., Decatur, Ala. Speaking to a group of business and civic leaders attending a meeting of the Charlotte N. C., chapter of the Society for the Advancement of Management, Dr. Soday said the business man has been "the prime mover in the sweeping advance in the standard of living of the region and has assisted the people in attaining those goals which the great religious and moral leaders once envisaged." Dr. Soday is vice-president of Chemstrand and director of its research and development division. He also serves as chairman of the board of trustees of the Southern Association of Science and Industry, the reporting agency on science and industry to the Southern Governors Conference.

Dr. Soday said all signs point to a continuation of the industrial boom which has brought new opportunities into the South. "Some 1,060 major manufacturing plants were completed in the area in 1956, and preliminary figures indicate that this number will be equaled or exceeded in 1957," he said.

Erwin Addresses International Conference

The U. S. textile industry is confident it will expand its markets at home and abroad as the result of product development, promotion and getting raw cotton at a competitive price. W. J. Erwin, president of Dan River Mills Inc., Danville, Va., voiced this view in a statement before the International Conference of the Cotton and Allied Textile Industries which got under way on Sept. 22 at Venice, Italy. Mr. Erwin spoke as chairman of the foreign trade committee of the American Cotton Manufacturers Institute. He is a member of a delegation of six executives, headed by L. G. Hardman Jr., of Commerce, Ga., president of the institute, who were invited to participate in the parley.

"We sincerely believe," said Mr. Erwin, "that the world's textile market can be enlarged greatly, and by so doing, a higher standard of living for the whole world will be attained." Mr. Erwin said the U. S. industry, like textiles everywhere, is faced by knotty problems with no solutions in sight. "A terrific challenge lies before us; also a tremendous opportunity."

Mr. Erwin told the international group it is likely the

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1958 session of the U. S. Congress "will take on special significance for the U. S. cotton textile industry and perhaps the textile industry of the rest of the world." The lawmakers, he said, are expected to re-examine the nation's policies regarding raw cotton and foreign trade. "On one hand," Mr. Erwin said, "there seems to be determination among all interested parties—farmers, Congressional leaders, government officials and others—to shape a long-range raw cotton policy aimed at making the product more competitive both at home and abroad. On the other hand, our nation's Trade Agreements program comes up for renewal by the Congress and there is widespread interest in making some changes in the law which will result in trade policies that are geared to the problems and opportunities of today, as contrasted to situations which prevailed 20 years ago when the law was first enacted." Mr. Erwin added that it is the intent of the industry "to express its views on these subjects, hoping to see legislation that will permit the textile industry to realize fully the vast potential which we believe lies before us."

The U. S. industry spokesman said the approach to the policy questions involves "a renewed determination by all the industries of the world—including our own—that we will strive for maximum consumption of our products, both in our home markets and in other markets to which we sell." Mr. Erwin said it is obvious that as the various nations strive for mutual understanding and co-operative efforts in dealing with worldwide textile problems "we must act according to the status and pattern of international relationships of each of our countries. There must be recognition of the differences that exist among the world's nations as to methods of doing business, wage structures, cost factors and markets," he said.

Touching on the subject of Japanese imports into the U. S., Mr. Erwin said the agreement reached by the U. S. and Japanese governments early this year served a highly important purpose. "It obviously is not a permanent solution to our total problem of export-import trade in textiles," he added. "It could not be such a solution when it involves only our imports from Japan, leaving untouched our import-export relationships with all the rest of the world. Something in the nature of a broader and more basic approach is indicated." Mr. Erwin said the Japanese program for controlling exports to the U. S. has resulted in maintaining the over-all volume at the 1955 level while the items are more varied. He added that textile imports from Japan in the first half of this year have been running below the comparable period of 1956.

Yearly Cotton Consumption In U. S. Off

The cotton consumption in the U. S. for the 12 month cotton season ended July 1957 has been reported by the Bureau of the Census to be 404,832 running bales less than that of the season ended July 1956. Of the 8,736,170 bales used during the 12 months ended July 1957 some 637,345 were consumed in the month of July 1957. June 1957 saw a total of 649,700 bales used and the month of July 1956 recorded the consumption of 547,480 bales.

Figures in the report indicate that cotton consumed in cotton growing states amounted to over 95 per cent of the total used during the year ended July 1957. Cotton used in the New England states totaled some 355,000 running bales while cotton growing states consumed over 8,327,000 running bales. Of the total U. S. consumption of cotton during the month of July 1957, 612,129 bales were used in cotton growing states while the New England states consumed 21,725.

Cotton consumption adjusted for seasonal variations, with 1947-1949 equal to 100, show that July 1956 was 100, June 1957 was 98 and July 1957 was 93. Cotton in public storage in July 1956 was 12,833,926 bales while June 1957 saw the total reduced to 10,059,527 and the July 1957 total was still further reduced to 9,414,733. Cotton stocks held in consuming establishments' warehouses for the three periods respectively amounted to 903,897; 1,250,893; and 1,151,207 bales.

Cotton Imports In June Off Sharply

Imports to the U. S. of cotton fabrics in June of this year were sharply reduced from the June 1956 total, according to reports from the Census Bureau. A total of 10,369,000 square yards, valued at $3.1 million, were sent into this country during June this year. Last year's total for the same month was 15,508,000 square yards, valued at $4.2 million. May 1957 saw 11,329,000 square yards, valued at $3.3 million, imported.

June 1957 imports for other cotton manufactures were valued at $6.4 million. This total is down from last June's $7.5 million and the May 1957 value of $8.2 million. Imports of burlap during June rose to 45,041,000 pounds valued at $7.1 million from 33,750,000 pounds valued at $5.4 million the same month during the year before and 38,378,000 valued at $6.3 million during May 1957. June 1957 value of wool manufactures imports at $11.8 million showed little change from the June 1956 total which was $11.5 million. Both figures are well below the $12.7 million value of May 1957.

Wool, Other Fiber Consumption Drops

The weekly average rate of fiber consumption on the woolen and worsted systems in July was 20 per cent below the June rate and 11 per cent below that of July 1956, according to reports from the Bureau of the Census. The weekly average raw wool consumption during July was 5,958 thousand pounds (scoured basis) or 20 per cent below the June level and 11 per cent below the level of July 1956. Consumption of apparel class wool was 21 per cent below the June level and 18 per cent below that of July last year.

Consumption of fibers other than raw wool averaged 4,745 thousand pounds per week or 19 per cent below the June average and six per cent below July 1956. The bureau made no allowance for seasonal changes in compiling these monthly totals and per cent changes. An estimate was included for each company which did not report in time for tabulation. The quantity estimated amounted to about five per cent of the total fiber consumption.

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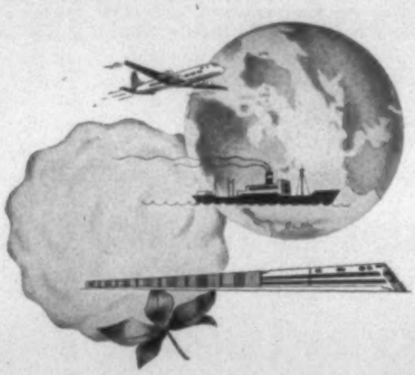

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Index to Advertisers

—A—

Adolf, Emil —
Aldrich Machine Works 59
Allen Son's Co. Div., Wm. (O. G. Kelley & Co.) —
American Aniline Products, Inc. 37
American Moistening Co. 64
American Viscose Corp. 41
Anheuser-Busch, Inc. (Corn Products Div.) —
Antara Chemicals Div. of General Aniline & Film Corp. —
Armstrong Cork Co. —
Ashworth Bros., Inc. —
Atlanta Belting Co. 82

—B—

Bahnson Co., The 8
Baily & Co., Inc., Joshua L. 117
Baker Mfg. Co. —
Banks & Sons, J. 67
Barber-Colman Co. 10
Barco Mfg. Co. —
Barkley Machine Works 117
Barrell Co., Wm. L. 106
Bendix Aviation Corp. (Eclipse Mch. Div.) 7
Bond Co., Charles —
Best & Co., Inc., Edward H. 114
Borden Co., The (Chemical Div.) 33
Borne Chemical Co., Inc. 103
Bouligny Co., The (Div. R. H. Bouligny) —
Bullard Clark Co., The Front Cover
Burkart-Schier Chemical Co. 117

—C—

Calgon Co. 53
Carolina Loom Reed Co. 72
Carolina Refractories Co. 111
Carter Traveler Co. (Div. of A. B. Carter, Inc.) 78
Charlotte Chemical Laboratories, Inc. 111
Chemstrand Corp. 14 and 15
Ciba Co., Inc. —
Clark-Cutler-McDermott Co. —
Clinton Corn Processing Co. 9
Cluett, Peabody & Co., Inc. —
Cocker Machine & Foundry Co. 18
Coleman Co., Inc. —
Comer Machinery Co. —
Cone Mills Corp. 12
Corn Products Sales Co. —
Courtaulds, Inc. —
Crompton & Knowles Corp. —
Cronland Warp Roll Co., Inc. 115
Curtis & Marble Machine Co. —
Cutler-Hammer, Inc. —

—D—

Dary Ring Traveler Co. 116
Davis, A. Benson (Ben) 119
Davis & Furber Machine Co. —
Dayton Rubber Co., The 4, 5, 22 and 23
Denman Textile Rubber Co. —
Dillard Paper Co. 27
Dixon Corp. 81
Dodge Mfg. Corp. —
Dolge Co., The C. B. 113
Draper Corp. 3 and 13
Dronsfield Bros. 110
Du Pont de Nemours & Co., E. I. Dyestuffs Division —

—F—

Ferguson Gear Co. —
Foster Machine Co. —

—G—

Gasaway Textile Mchy., R. D. 119
Gaston County Dyeing Machine Co. —
Gastonia Textile Sheet Metal Works, Inc. 85
General Asbestos Rubber Div. of Raybestos-Manhattan, Inc. 107
General Dyestuff Co. Div. of General Aniline & Film Corp. 11
Georgia-Carolina Oil Co. —
Gessner Co., David —
Gilman Paint & Varnish Co. 98
Gossett Machine Works 16
Gossett-Mason, Inc. —
Greensboro Industrial Platers, Inc. —
Greensboro Loom Reed Co. —
Guardian Chemical Co. —
Gulf Oil Corp. of Pa. —

—H—

Hagan Chemicals & Controls, Inc. (Calgon Co. Div.) 53
Hart Products Corp. 21
Hartford Machine Screw Co. —
Henley Paper Co. —
Herr Mfg. Co., Inc. 75
Holyoke Machine Co. 54
Houghton & Co., E. F. —
Howard Bros. Mfg. Co. 24
Hubinger Co., The 6

—I—

Ideal Industries, Inc. —
Ideal Machine Shops, Inc. 101

—J—

Jacobs Mfg. Co., The E. H. (Northern and Southern Divisions) Front Cover

—K—

Keever Starch Co. 89

—L—

Landis, Inc., Oliver 99 and 109
Laurel Soap Mfg. Co., Inc. 94
Livermore Corp., H. F. —
Livingstone Coating Corp. 115
Loper Co., Ralph E. 110

—M—

Manhattan Rubber Division 107
Manton-Gaulin Mfg. Co., Inc. 45
Marquette Metal Products Co., The (Curtiss-Wright) —
Marshall & Williams Corp. —
McDonough Power Equipment, Inc. (Machinery & Foundry Div.) —
Meadows Mfg. Co. 77
Mill Devices Co. (Div. of A. B. Carter, Inc.) 78
Monsanto Chemical Co. —
Monticello Bobbin Co. 82

—N—

National Aniline Div., Allied Chemical & Dye Corp. —
National Ring Traveler Co. 51
National Starch Products, Inc. —
National Vulcanized Fibre Co. 97
New England Bobbin & Shuttle Co. —
N. Y. & N. J. Lubricant Co. 44
Noble, Roy —
North, Inc., Frank G. 114

—O—

Oakite Products, Inc. 109
Orr Felt & Blanket Co., The 99

—P—

Pabst Brewing Co. 93
Parks-Cramer Co. —
Pease & Co., J. N. 115
Penick & Ford, Ldt., Inc. 29
Perkins & Son, Inc., B. F. —
Philadelphia Quartz Co. 111
Phoenix Oil Co. 113
Piedmont Airlines, Inc. 42
Pilot Life Insurance Co. 100
Pneumafil Corp. 43
Precision Gear & Machine Co. 40
Proctor Chemical Co. —
Proctor & Schwartz, Inc. —

—R—

Radiator Specialty Co. 113
Raybestos-Manhattan, Inc. General Asbestos & Rubber Div. 107
Raymond Service, Inc., Chas. P. 119
Reiner, Inc., Robert —
Rice Dobby Chain Co. 107
Riggs & Lombard, Inc. 90
Roberts Co. 39
Rohm & Haas Co. (Textile Div.) —
Rose Co., Bennett 46
Roy & Son Co., B. S. —

—S—

Saco-Lowell Shops 20 and 35
Sandoz Chemical Works, Inc. —
Scott Testers, Inc. 116
Seydel-Woolley & Co. 63
Sims Metal Works —
Sinclair Refining Co. 19
Solvay Process Div., Allied Chemical & Dye Corp. 17
Sonoco Products Co. 30
Southern Engineering Co. 114
Southern Shuttles Div. (Steel Heddle Mfg. Co.) 121
Southern States Equipment Corp. —
Staley Sales Corp., A. E. —
Steel Heddle Mfg. Co. and Southern Shuttles Div. 121
Steel & Tank Service Co. —
Stein, Hall & Co., Inc. (Textile Dept.) —
Stover Co., Charles G. 119

—T—

Tennessee Corp. 49
Terrell Machine Co., Inc., The —
Texas Co., The 56
Textile Apron Co. 116
Textile Hall Corp. —
Textile Shops, The 86
Textile Specialty Co. —
Thomaston Mills —
Trust Co. of Georgia —
Turner & Chapman 119

—U—

U S Bobbin & Shuttle Co. —
U. S. Ring Traveler Co. 110
Universal Winding Co. —
Uster Corp. —

—V—

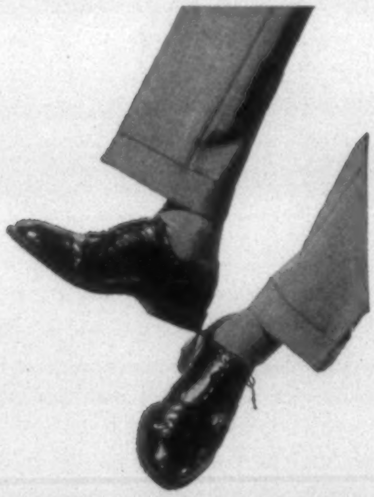
Valentine Co., J. W. 117
Veeder-Root, Inc. 2
Victor Ring Traveler Co. 36

—W—

WAK Industries 119
Walton & Lonsbury 55
Watson & Desmond —
Watson-Williams Mfg. Co. —
West Point Foundry & Machine Co. Back Cover
Westvaco Chlor-Alkali Div. —
Whitin Machine Works 25
Whitinsville Spinning Ring Co. 115
Wolf & Co., Jacques —
Wood's Sons Co., T. B. —

—Y—

Yeomans Textile Machinery Co. —
Young Machine Co., F. A. —



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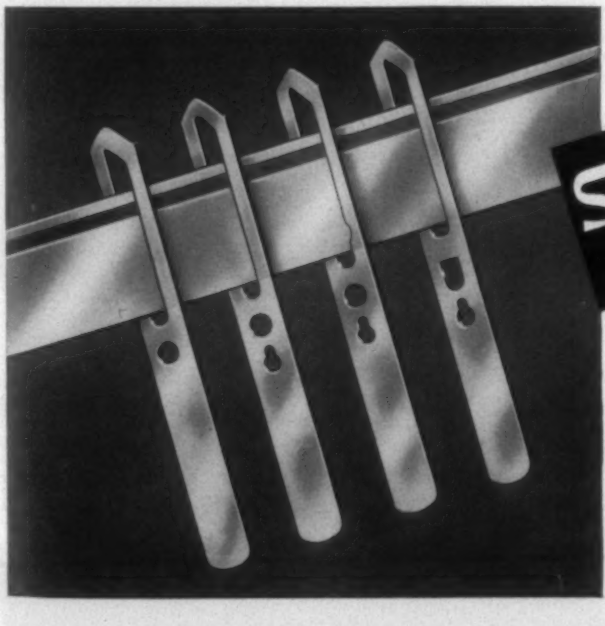
He May Be Robbing YOU



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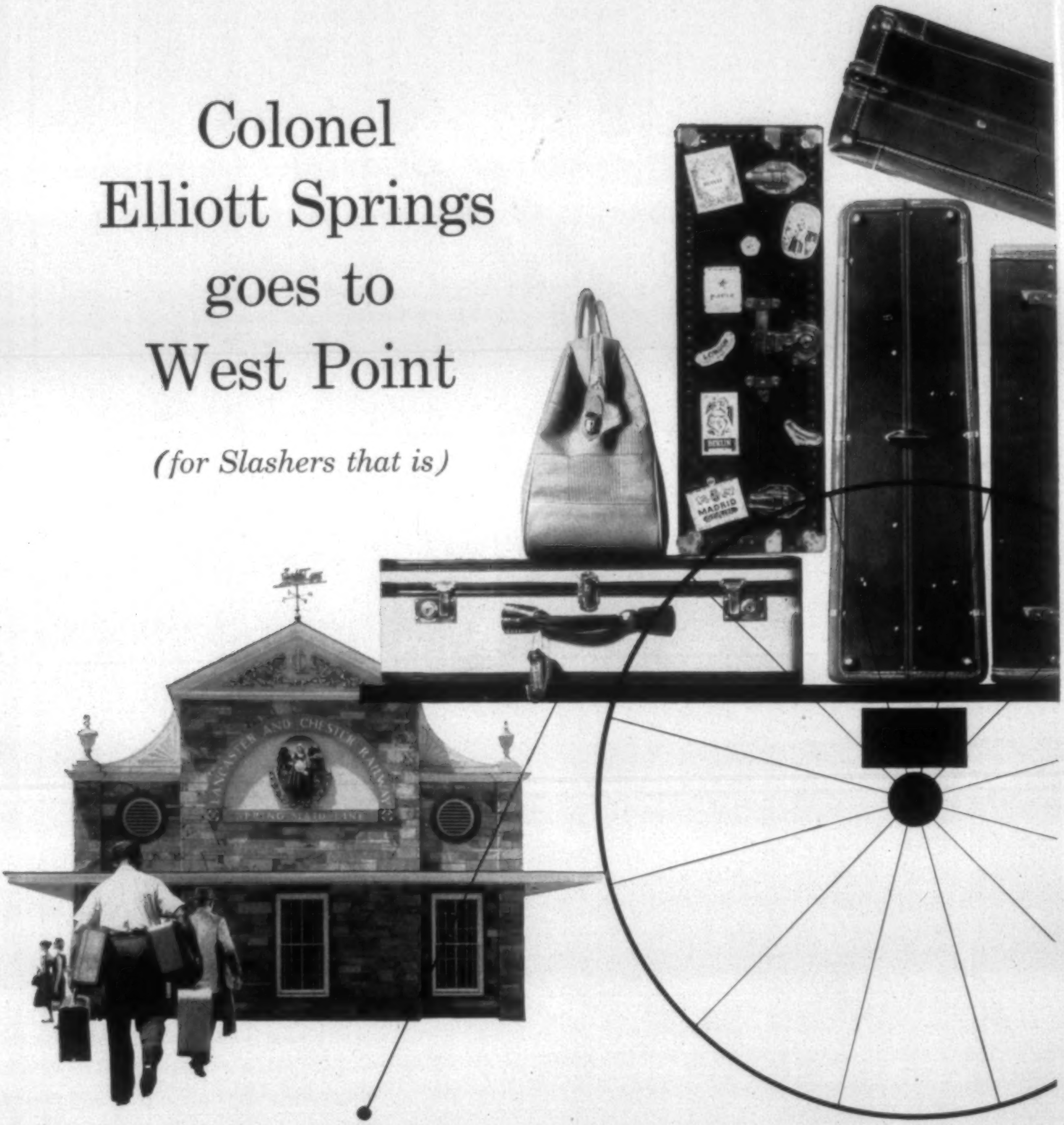
Colonel Elliott Springs goes to West Point

(for Slashers that is)



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